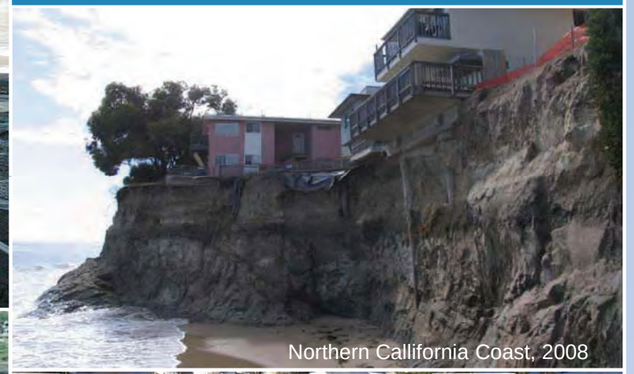

Mojave River, near Barstow, 2005


Northern Callifornia Coast, 2008


La Conchita, 2005


San Joaquin, 1997

Attachment D

Attachment D
Summary of Exposure and Infrastructure Inventory by County

September 2013

US Army Corps of Engineers ®

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

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Statewide GIS Data Legend

Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station (PS)
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Attachment D - Table of Contents

Table of Contents

Attachment D
Summary of Exposure and Infrastructure Inventory by County

September 2013

US Army Corps of Engineers ®

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

Map Contents & Sources of Information

1. Summary of Available Flood Types, Flood History, and Flood Hazard Exposure

100-year and 500-year Floodplains – The displayed floodplains were compiled for the SFMP from the following three sources (500-year floodplains were not available for some remote areas of the State):

1. The CVFPP floodplains, as defined by the CVFPP on October 4, 2011, for the Yolo, East Side, Upper Sacramento, Mariposa, Sutter, and Tisdale bypasses;
2. Floodplains defined (or refined) by USACE flood maps based on ER 1105-2-101 standards;
3. FEMA Flood Insurance Rate Maps (FIRMs).

History of Flooding by Event Year – This is a chronological list of floods of record affecting the county. When available, additional details include dates, flood name, and streams or regions affected. Sources include Agency Interviews, County Hazard Mitigation Plans, the California Water Plan 2009, Alluvial Fan Task Force Study Area Flood History, Taming Natural Disasters Appendix D, and various storm reports.

Types of Flooding – This is a list of common and possible types of flooding within the county.

Flood Hazard Exposure – This is a list of county statistics for land area, population, and structures based on the 2000 census. The quantity and percentage of area, population, structure and land values, and other important facilities exposed to the 100-year and 500-year flood events are also listed. Exposure numbers for acreage are rounded to the nearest 100 acres except where the number is smaller than 100. In such cases, they are rounded to the nearest 10 acres for values between between 10 and 100, and to the nearest 1 acre for values between 1 and 10.

Notes: Based on the source information, no 100-year or 500-year floodplain exists in Alpine County. The San Francisco County floodplain delineation was still in progress at the time it was obtained in the Fall of 2011.

Floodplain delineation in the vicinity of water bodies varies by county. In some counties the floodplain covers the entire body of water, while others include only a buffer along the shoreline. For the purposes of the enclosed maps, lakes and coastal bay layers have been shown on top of the delineated floodplain. Floodplains may have discontinuities at county boundaries.

Disclaimers

1. Information displayed on the maps does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown.

2. The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.

2. Summary of Available Flood Infrastructure Information

Summary of Available Flood Infrastructure Information – This is a graphic display of the entire county showing existing flood infrastructure that has been mapped and made available in a Geographic Information System (GIS) format. Note that some of the counties were oriented differently to maximize the size of the county on the map. The following additional information and a legend of corresponding symbols is also provided on the flood infrastructure maps:

1. **Flood Infrastructure GIS Data Received from Agencies** – Infrastructure data provided by local agencies in GIS compatible formats (shapefile and geodatabase) is shown on the maps for the respective counties and is listed with the corresponding map symbol.

2. **Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted** – Infrastructure data provided by local agencies is listed for informational purposes only. This data is not displayed graphically on the maps.

3. **Agencies Contacted as Part of SFMP** – This is a list of those agencies contacted by the information gathering teams.

4. **Statewide GIS Data** – A legend of available statewide GIS data is provided at the bottom of each map. Statewide GIS Data sources include:
   - -Cities derived from California Department of Forestry and Fire Protection (CAL FIRE) Incorporated Cities polygons, 2010.
   - -Populated Places from Geographic Names Information System (GNIS), US Board on Geographic Names, USGS, 2011.
   - -Dams modified from DWR, Bulletin 17-00, 2000. Not all dams are necessarily flood infrastructure as that information is not provided specifically in the Bulletin.
   - -Pump Stations and Levees from California Levee Database (CLD), v2.2 r2, 2010.
   - -NFHL Dam or Weir, Levee, Flood Event Structure, Channel, Control Structure, Dike and Retaining Wall are from the National Flood Hazard Layer, FEMA, July 2011 or from preliminary countywide DFIRM databases.
   - -Rivers and Lakes, modified from Department of Fish Game (DFG) in 2009, previously downloaded from CalAtlas, original publication date not available.
   - -Counties and Hillshade from CalAtlas 2009.
   - -Highways from TeleAtlas, 2004.

Planned Projects – The planned projects represent information gathered from local, State, and Federal agencies for Federal Fiscal Year 2012. A number of the identified projects do not have cost associated with them.

Definitions/Acronyms

California Levee Database (CLD): The CLD contains data about the centerline of an embankment for controlling rivers, coastal areas, or other water bodies. In creating the CLD, all structures that could hold back water were digitized for flood planning purposes. Some of these structures are not technically levees (such as railroad grades, irrigation canals, etc.). However the information necessary to distinguish these features from actual "levees" is not completely present in the CLD. DWR makes no warranties, representations or guarantees, either expressed or implied, as to the completeness, accuracy or correctness of the data, nor accepts or assumes any liability arising from or for any incorrect, incomplete or misleading data provided pursuant to this request.

National Flood Hazard Layer (NFHL): The NFHL is a computer database that contains the flood hazard map information from FEMA's Flood Map Modernization program. These map data are from Digital Flood Insurance Rate Map (DFIRM) databases and Letters of Map Revision (LOMRs). Relevant NFHL flood infrastructure that was not submitted by a local agency and is not included in the CLD or listed in DWR Bulletin 17-00, 2000, is displayed on the maps and legend.

DWR Local Agency Dam: Those dams listed in DWR Bulletin 17-00, 2000, where the maintaining agency listed is one of the agencies contacted during the SFMP information collection efforts.

DWR Other Dam: All other dams listed in DWR Bulletin 17-00, 2000, which are not maintained by one of the agencies contacted during the SFMP information collection efforts.

CLD Local Agency Levee: Those levees within the CLD where the "maintaining agency" attribute is one of the agencies contacted during the SFMP information collection efforts. Note: only approximately 23% of the CLD levee lines have a populated "maintaining agency" attribute.

CLD Other Levee: All other levees in the CLD that either do not have a maintaining agency listed, or the listed agency is not one of the agencies contacted during the SFMP information collection efforts.

Attachment D - Notes

County Maps:

1. Summary of Available Flood Types, Flood History, and Flood Hazard Exposure (58 Maps)

2. Summary of Available Flood Infrastructure Information (58 Maps)

Attachment D
Summary of Exposure and Infrastructure Inventory by County

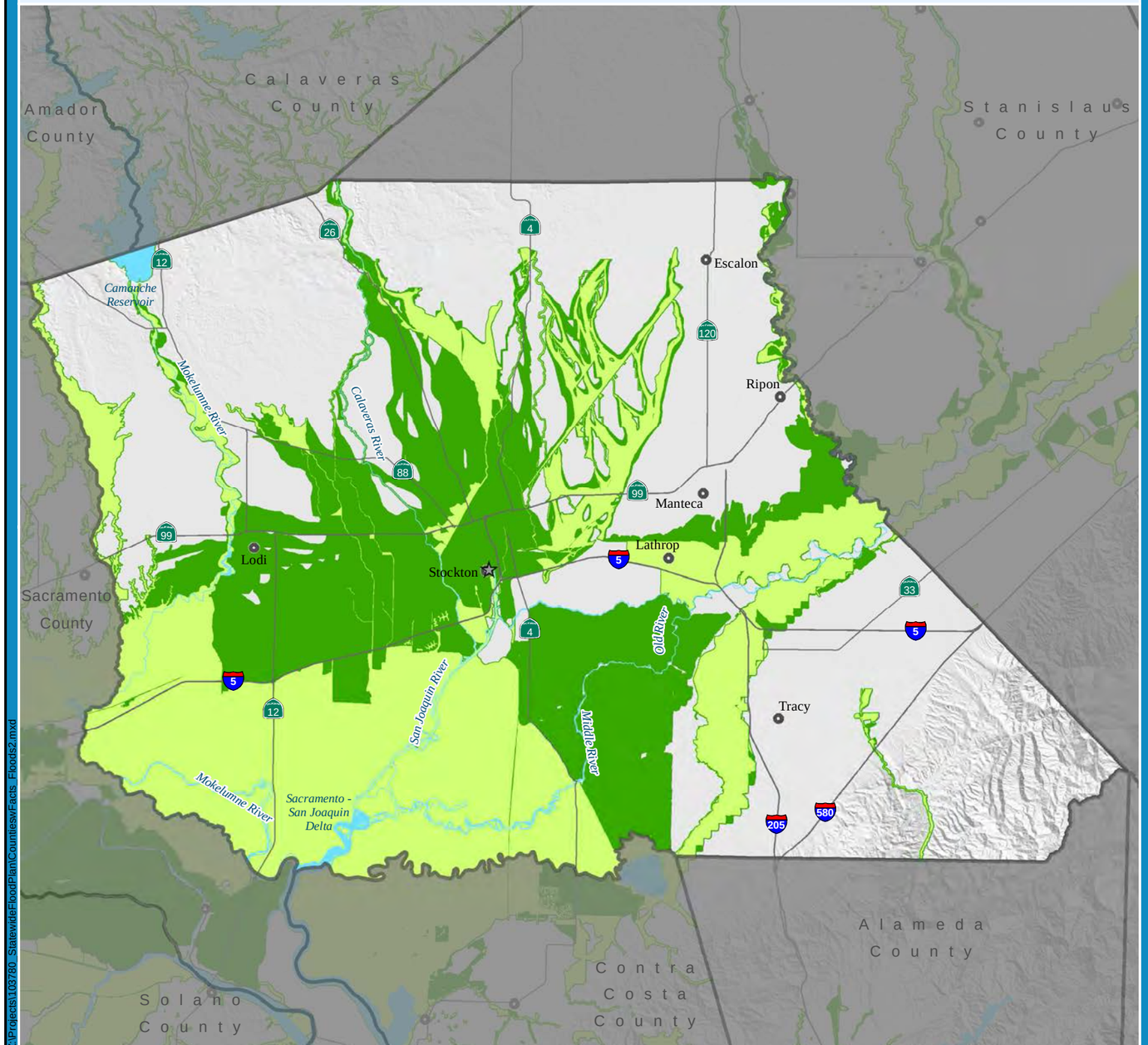
September 2013

US Army Corps of Engineers ®

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

100-year and 500-year Floodplains



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0 2.75 5.5 11
Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

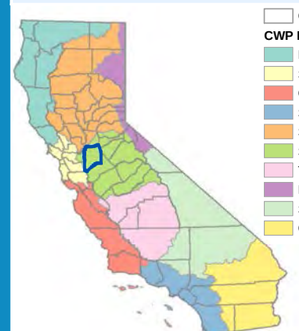
Selected Flood Events by Event Year

1776
1861-1862 Winter, The Great Flood
1907 March, The Great Ione Flood
1911 January
1938 Winter, Great Flood
1955-1956 Winter, 1955 Christmas Flood
1958 Winter/Spring
1962-1963 Winter
1964-1965 Winter
1966-1967 Winter
1968-1969 Winter 1968-1969 Storms
1969-1970 Winter/Spring, Northern California Flooding
1982-1983 Winter/Spring, Winter Storms
1986 Winter, St. Valentine's Day Storm
1995-1996 Winter/Spring, 1995 Christmas Floods
1996-1997 Winter, January 1997 Floods
1997-1998 Winter/Spring, El Niño Floods
2005-2006 Winter, New Year's Eve Flood of 2006
2006 2006 Spring Storms

Types of Flooding

Likely:	Present:
Flash	Alluvial Fan
Slow-rise	Debris Flow
Stormwater	Engineered Structure Failure

Hydrologic Regions



County
CWP Hydrologic Regions
North Coast
San Francisco Bay
Central Coast
South Coast
Sacramento River
San Joaquin River
Tulare Lake
North Lahontan
South Lahontan
Colorado River

Flood Hazard Exposure

County Statistics

Total Acreage:	912,600
Total Population:	563,600
Total Structures:	181,300
Total Depreciated Replacement Value of Structures and Contents:	$47.6 billion
Total Crop Acreage:	566,000
Total Value of Crops:	$1.5 billion

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	242,900	435,200
Percent of Area Exposed:	27%	48%
Population Exposed:	42,400	371,200
Percent of Population Exposed:	8%	66%
Structures Exposed:	16,000	119,400
Depreciated Replacement Value of Structures and Contents Exposed:	$3.5 billion	$27.9 billion
Crops Exposed (acres):	183,900	326,700
Value of Crops Exposed:	$566.5 million	$947.9 million
Department of Defense Facilities Exposed:	2	2
Essential Facilities Exposed:	18	188
High Potential Loss Facilities Exposed:	29	71
Lifeline Utilities Exposed:	1	17
Transportation Facilities Exposed:	187	416
Transportation Segments Exposed (miles):	130	381
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	28	28
Total Sensitive Animal Species Exposed:	40	40

San Joaquin County

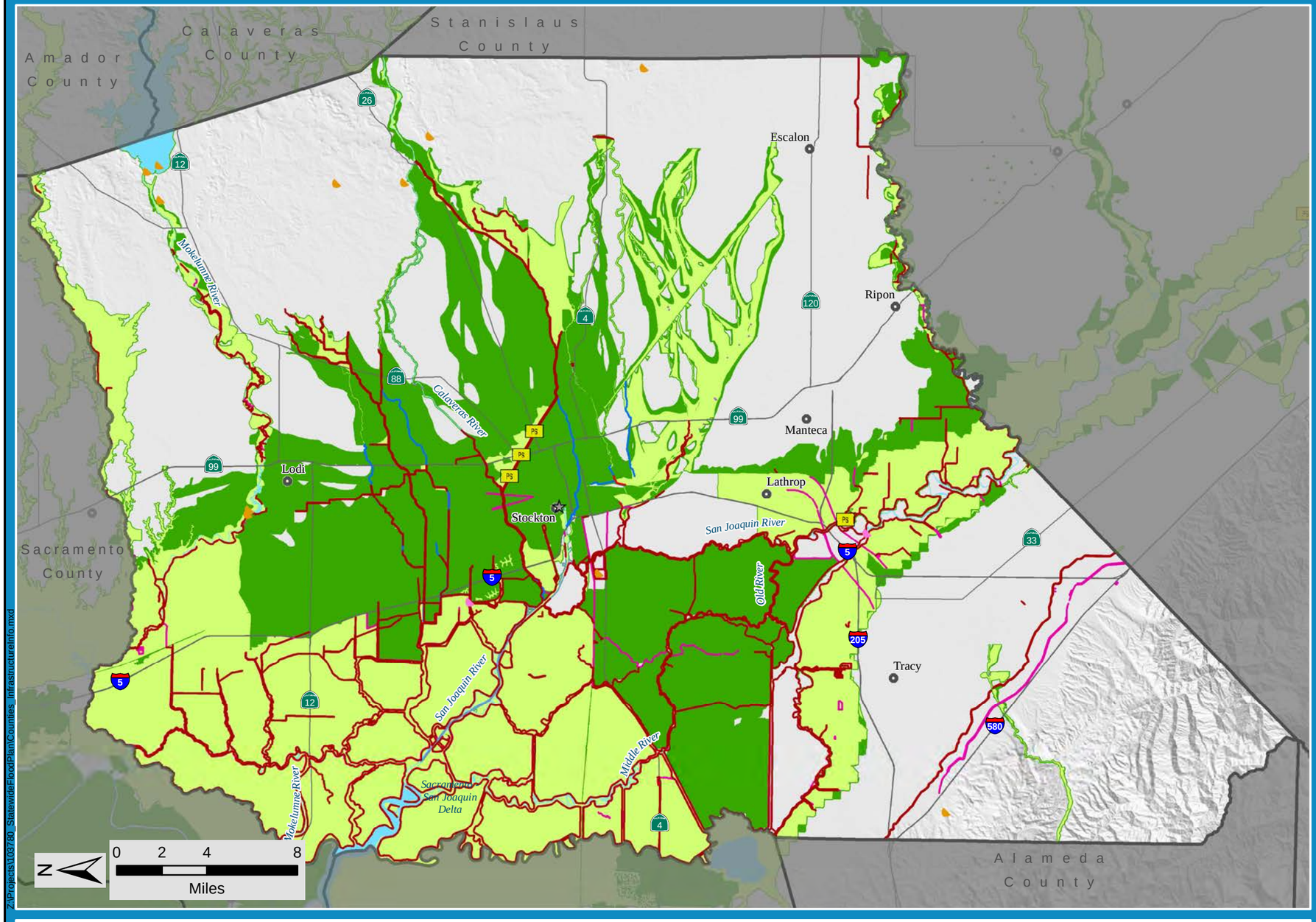
Figure D-77
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, San Joaquin County.

September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

Summary of Available Flood Infrastructure Information



Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

San Joaquin County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Levee
Channel
Dam
Pump Station
Reservoir

Agencies Contacted as Part of SFMP:

San Joaquin Area Flood Control Agency
San Joaquin County Flood Control and Water Conservation District
Stockton-East Water District

Planned Projects:

Number of Local Projects:	9
Estimated Cost of Local Projects:	$491.6 million
Number of USACE Projects:	1
Estimated Cost of USACE Projects:	$33.5 million

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

San Joaquin County

Figure D-78
Summary of Available Flood Infrastructure Information, San Joaquin County

September 2013

US Army Corps of Engineers.

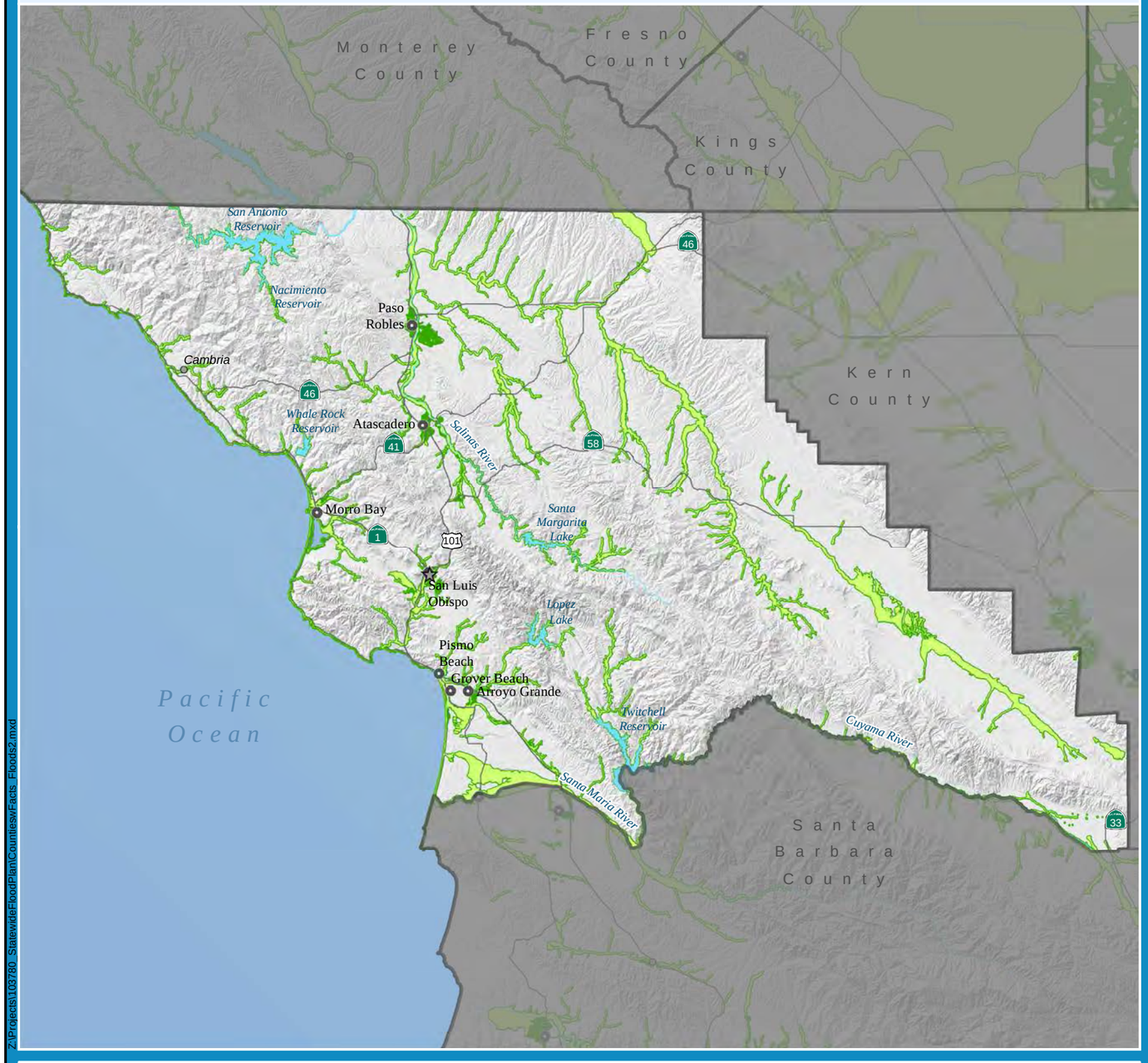
STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

San Luis Obispo County

100-year and 500-year Floodplains



N

0 5 10 20

Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

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DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Selected Flood Events by Event Year

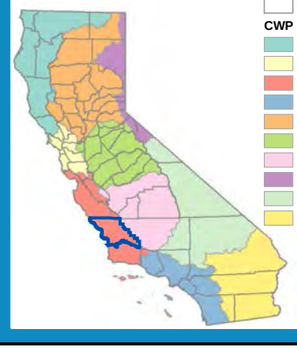
1878 January 14
1914 January, Heavy Rain of 1914
1938 Winter, Great Flood
1955-1956 Winter, 1955 Christmas Flood
1958 April
1966-1967 Winter
1969 Winter, Winter 1969 Storms
1973 Winter, Coastal Flooding
1980 February 12-22, Winter Storms
1982-1983 Winter/Spring, Winter Storms
1995 Severe Winter Storms
1996-1997 Winter, January 1997 Floods
1998 Spring, El Niño Floods
2002 December, El Niño Floods
2004 December 27
2005 January
2005-2006 Winter, New Year's Eve Flood of 2006
2006 May 10
2010-2011 December 2010 Winter Storm Event
2011 March

Types of Flooding

Likely:
Alluvial Fan
Coastal
Debris Flow
Flash
Slow Rise
Stormwater

Present:
Engineered Structure Failure
Tsunami

Hydrologic Regions



County
CWP Hydrologic Regions
North Coast
San Francisco Bay
Central Coast
South Coast
Sacramento River
San Joaquin River
Tulare Lake
North Lahontan
South Lahontan
Colorado River

Flood Hazard Exposure

County Statistics

Total Acreage:	2.1 million
Total Population:	246,700
Total Structures:	103,000
Total Depreciated Replacement Value of Structures and Contents:	$25.8 billion
Total Crop Acreage:	201,400
Total Value of Crops:	$255.2 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	100,600	108,300
Percent of Area Exposed:	5%	5%
Population Exposed:	11,000	44,500
Percent of Population Exposed:	4%	18%
Structures Exposed:	5,800	19,600
Depreciated Replacement Value of Structures and Contents Exposed:	$1.4 billion	$4.5 billion
Crops Exposed (acres):	20,100	21,100
Value of Crops Exposed:	$62.0 million	$64.5 million
Department of Defense Facilities Exposed:	1	1
Essential Facilities Exposed:	2	29
High Potential Loss Facilities Exposed:	4	7
Lifeline Utilities Exposed:	6	10
Transportation Facilities Exposed:	127	173
Transportation Segments Exposed (miles):	65	86
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	104	104
Total Sensitive Animal Species Exposed:	65	65

Figure D-79
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, San Luis Obispo County.

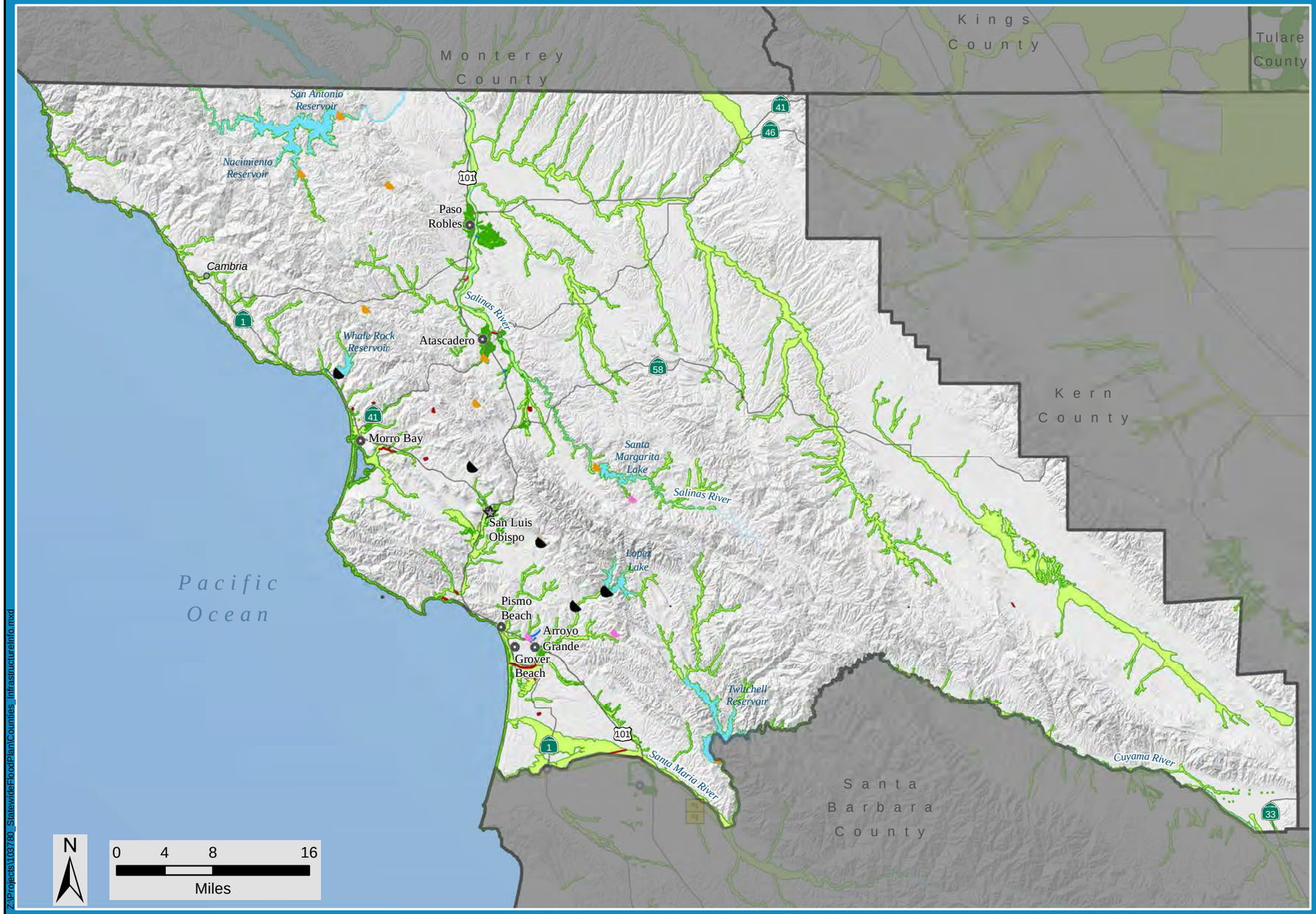
September 2013

US Army Corps of Engineers

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

Summary of Available Flood Infrastructure Information



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San Luis Obispo County

Flood Infrastructure GIS Data Received from Agencies Contacted:

- Dam

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Levee
Channel
Dam

Agencies Contacted as Part of SFMP:

San Luis Obispo County Flood Control and Water Conservation District

Planned Projects:

Number of Local Projects:	5
Estimated Cost of Local Projects:	$39.5 million
Number of USACE Projects:	0
Estimated Cost of USACE Projects:	none

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

San Luis Obispo County

Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Figure D-80

Summary of Available Flood Infrastructure Information, San Luis Obispo County

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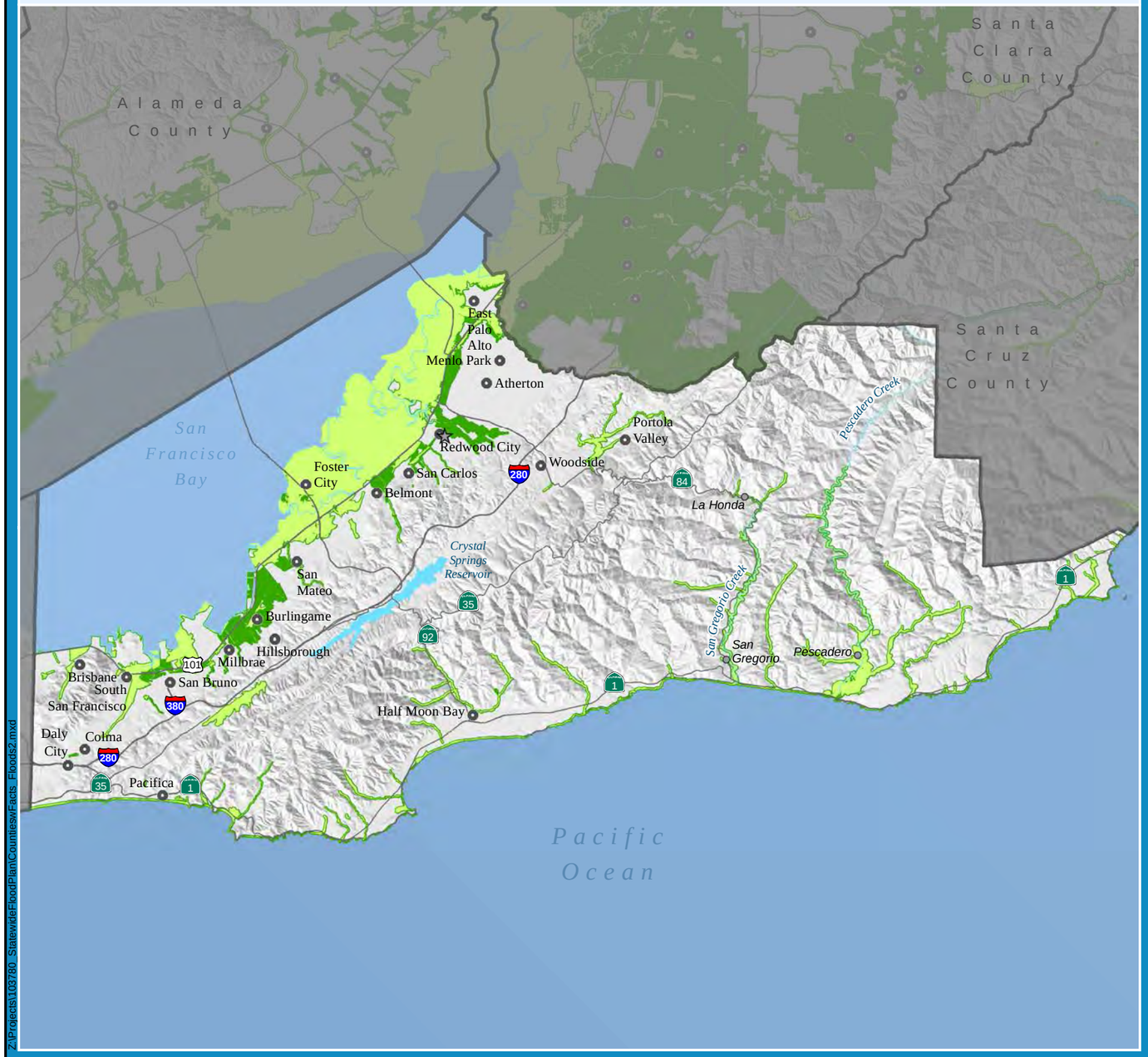
STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

San Mateo County

100-year and 500-year Floodplains



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0 2 4 8 Miles

City · Populated Place · Highway · Major River · 100-yr Floodplain · 500-yr Floodplain · Major Water Body · County

Selected Flood Events by Event Year

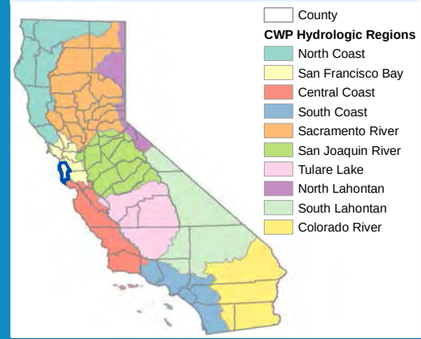
1798-1799 Winter
1819 Winter
1861-1862 Winter, The Great Flood
1955-1956 Winter, 1955 Christmas Flood
1958 Winter
1962 October
1964 Winter
1969-1970 Winter/Spring, Northern California Flooding
1981-1982 Winter/Spring Storms
1982-1983 Winter/Spring, Winter Storms
1995-1996 Winter, 1995 Christmas Floods
1996-1997 Winter, January 1997 Floods
1998 Winter/Spring, El Niño Floods
2000 February 13-14
2005-2006 Winter, New Year's Eve Flood of 2006
2006 2006 Spring Storms
2008 January 5-14, 2008 Winter Storms
2010 January 10
2011 March
2012 December

Types of Flooding

Likely:
Coastal
Debris Flow
Flash
Slow Rise
Stormwater

Present:
Engineered Structure Failure
Tsunami

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	353,500
Total Population:	706,800
Total Structures:	218,000
Total Depreciated Replacement Value of Structures and Contents:	$75.0 billion
Total Crop Acreage:	7,300
Total Value of Crops:	$23.1 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	88,000	92,300
Percent of Area Exposed:	25%	26%
Population Exposed:	100,100	149,700
Percent of Population Exposed:	14%	21%
Structures Exposed:	30,300	44,700
Depreciated Replacement Value of Structures and Contents Exposed:	$13.8 billion	$19.2 billion
Crops Exposed (acres):	600	600
Value of Crops Exposed:	$3.0 million	$3.0 million
Department of Defense Facilities Exposed:	0	0
Essential Facilities Exposed:	31	58
High Potential Loss Facilities Exposed:	54	56
Lifeline Utilities Exposed:	9	9
Transportation Facilities Exposed:	82	105
Transportation Segments Exposed (miles):	34	56
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	43	46
Total Sensitive Animal Species Exposed:	39	40

Figure D-81
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, San Mateo County.

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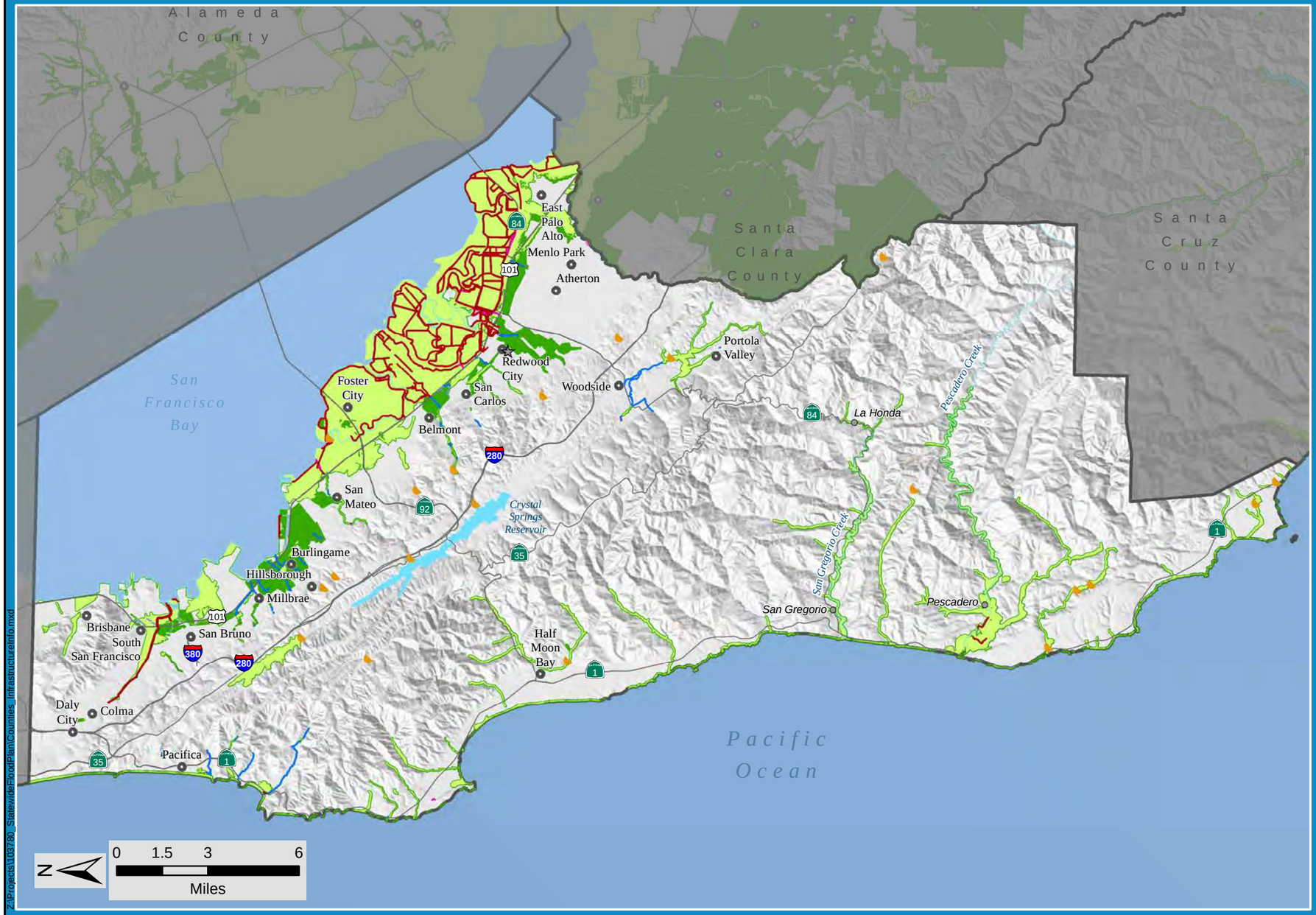
US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



San Mateo County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Levee
Channel
Pump Station
Flood Wall

Agencies Contacted as Part of SFMP:

San Francisquito Creek Joint Powers Authority
San Mateo County

Planned Projects:

Number of Local Projects:	4
Estimated Cost of Local Projects:	$26 million
Number of USACE Projects:	0
Estimated Cost of USACE Projects:	none

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Figure D-82
Summary of Available Flood Infrastructure Information, San Mateo County

September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

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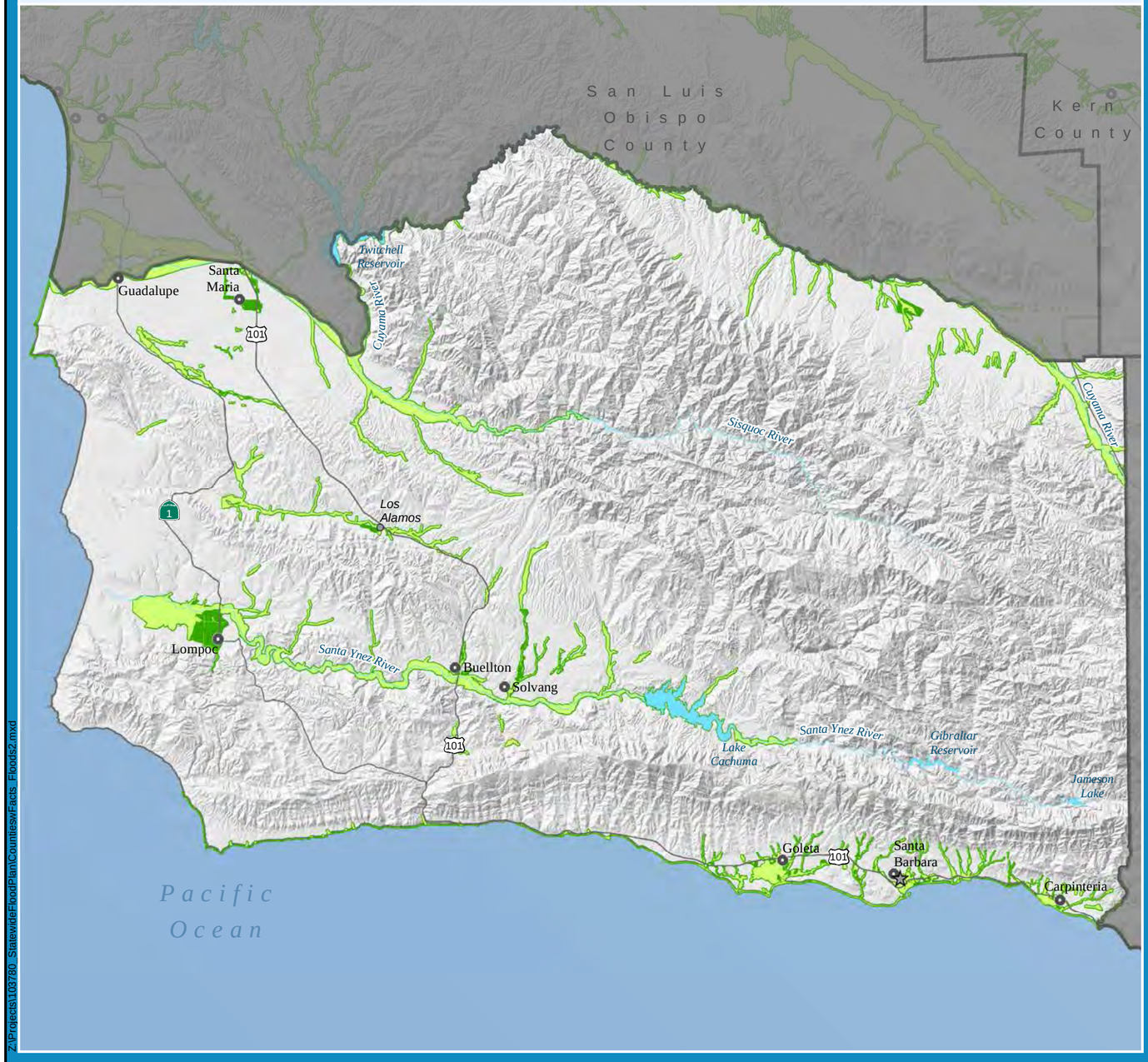
DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

100-year and 500-year Floodplains



N

0 3.25 6.5 13

Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

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Selected Flood Events by Event Year

1812-1813 Late Winter Storms
1861-1862 Winter, The Great Flood
1914 January, Heavy Rain of 1914
1938 Winter, Great Flood
1955-1956 Winter, 1955 Christmas Flood
1958 April
1964-1965 Winter
1965 Winter
1966-1967 Winter
1969 Winter 1969 Storms
1980 February 12-22 Winter Storms
1982-1983 Winter/Spring, Winter Storms
1995 Winter, Severe Winter Storms
1996-1997 Winter, January 1997 Floods
1998 Spring, El Niño Floods
2002 December, El Niño Floods
2005 January
2010 February, Tsunami
2010-2011 December 2010 Winter Storm Event
2011 March

Types of Flooding

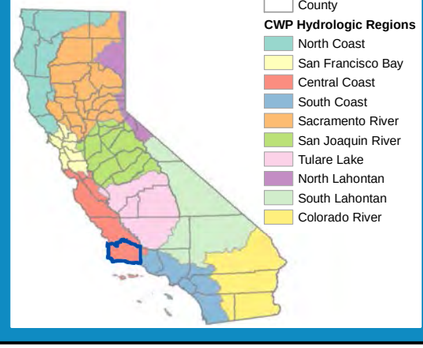
Likely:

Alluvial Fan
Coastal
Debris Flow
Flash
Slow Rise
Stormwater

Present:

Engineered Structure Failure
Tsunami

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	1.8 million
Total Population:	399,000
Total Structures:	128,000
Total Depreciated Replacement Value of Structures and Contents:	$33.0 billion
Total Crop Acreage:	109,900
Total Value of Crops:	$577.4 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	51,800	56,800
Percent of Area Exposed:	3%	3%
Population Exposed:	26,200	60,300
Percent of Population Exposed:	7%	15%
Structures Exposed:	8,000	18,400
Depreciated Replacement Value of Structures and Contents Exposed:	$2.7 billion	$5.2 billion
Crops Exposed (acres):	15,500	16,500
Value of Crops Exposed:	$52.1 million	$54.2 million
Department of Defense Facilities Exposed:	1	1
Essential Facilities Exposed:	17	32
High Potential Loss Facilities Exposed:	1	1
Lifeline Utilities Exposed:	6	8
Transportation Facilities Exposed:	125	152
Transportation Segments Exposed (miles):	51	67
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	55	55
Total Sensitive Animal Species Exposed:	54	54

Santa Barbara County

Figure D-83
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Santa Barbara County.

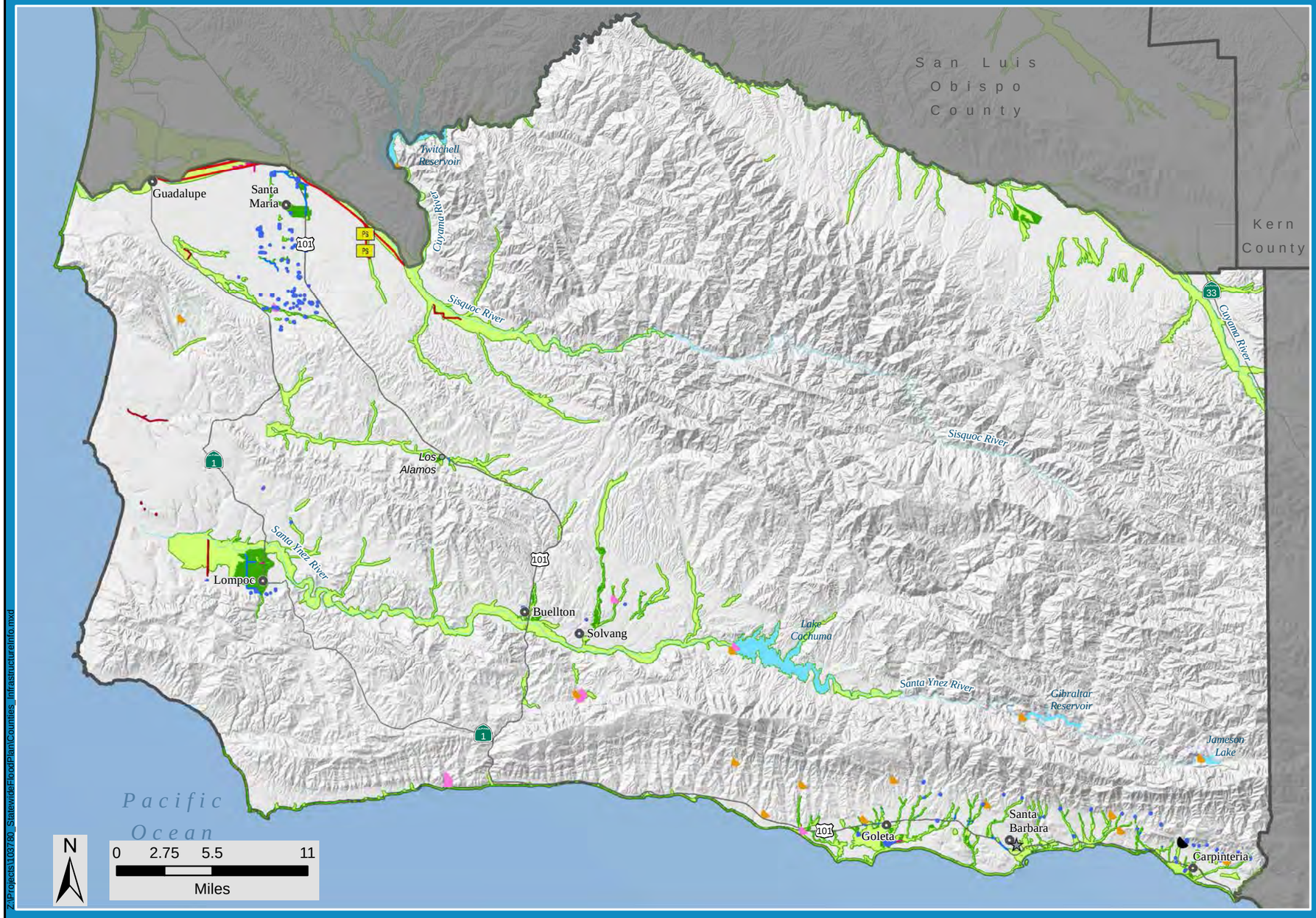
September 2013

US Army Corps of Engineers

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



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Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Santa Barbara County

Flood Infrastructure GIS Data Received from Agencies Contacted:

- Santa Maria River Levee
- Flood Control/Detention/Debris Basin

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Channel
Floodwall

Agencies Contacted as Part of SFMP:

Santa Barbara Flood Control and Water Conservation District

Planned Projects:

Number of Local Projects:	3
Estimated Cost of Local Projects:	n/a
Number of USACE Projects:	3
Estimated Cost of USACE Projects:	$153.4 million

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Santa Barbara County

Figure D-84
Summary of Available Flood Infrastructure Information, Santa Barbara County

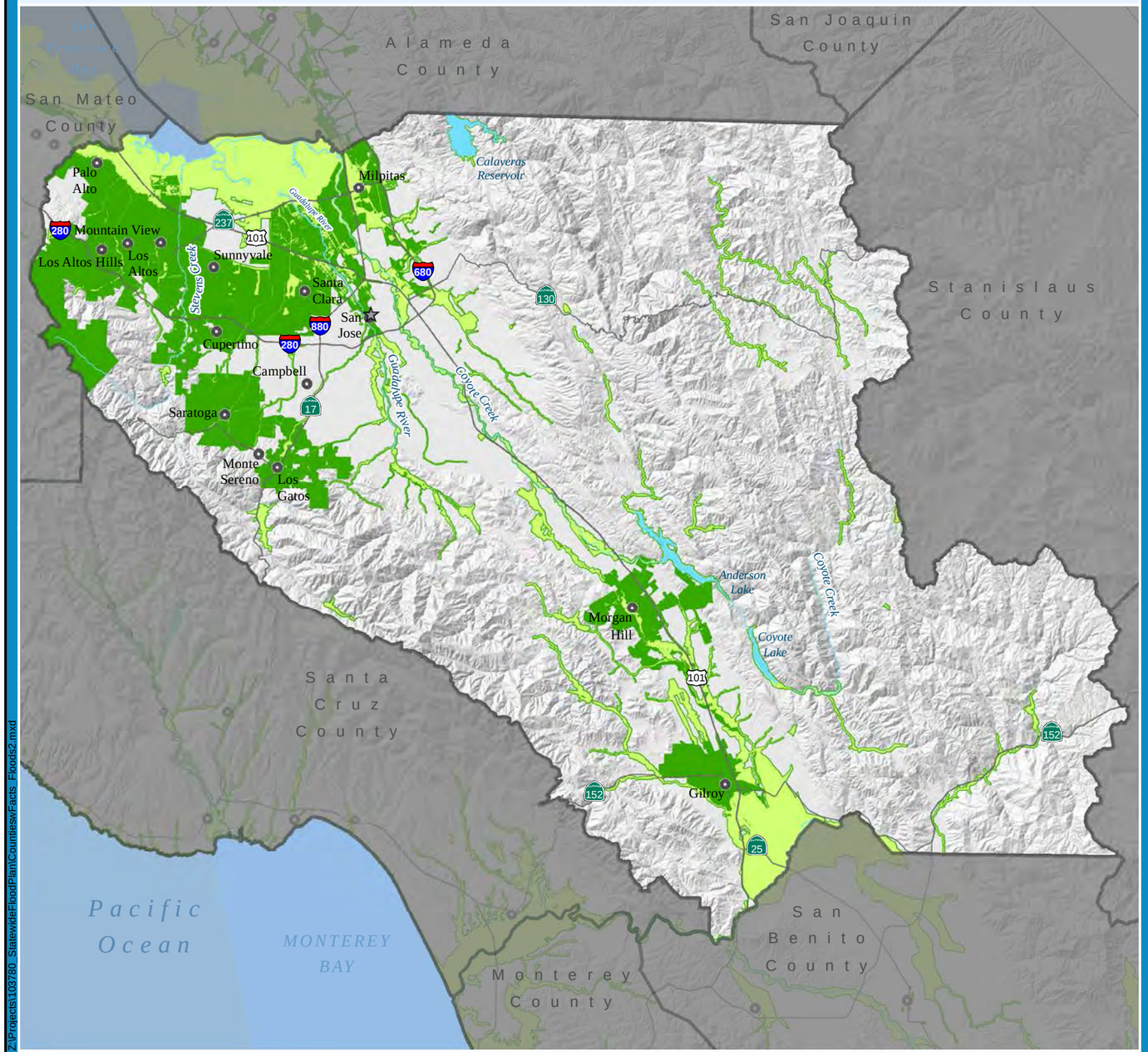
September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

100-year and 500-year Floodplains



N

0 2.5 5 10

Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

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Selected Flood Events by Event Year

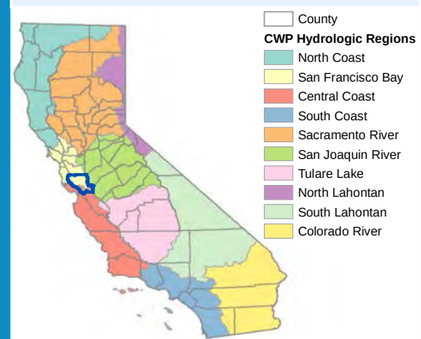
1798-1799 Winter
1861-1862 Winter, The Great Flood
1907 March 19, 23
1938 Winter, Great Flood
1955-1956 Winter, 1955 Christmas Flood
1958 Spring
1962-1963 Winter
1966-1967 Winter
1968-1969 Winter 1968-1969 Storms
1981-1982 Winter/Spring Storms
1982-1983 Winter/Spring, Winter Storms
1986 Winter, St. Valentine's Day Storm
1992 Late Winter Storms
1995-1996 Winter, 1995 Christmas Floods
1996-1997 Winter, January 1997 Floods
1998 Winter, El Niño Floods
2002 December, El Niño Floods
2005 January
2005-2006 Winter, New Year's Eve Flood of 2006
2009 October 13, 27

Types of Flooding

Likely:
Debris Flow
Flash
Slow Rise
Stormwater

Present:
Engineered Structure Failure

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	835,200
Total Population:	1.7 million
Total Structures:	488,100
Total Depreciated Replacement Value of Structures and Contents:	$185.7 billion
Total Crop Acreage:	71,300
Total Value of Crops:	$127.1 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	60,900	145,200
Percent of Area Exposed:	7%	17%
Population Exposed:	132,600	664,100
Percent of Population Exposed:	8%	39%
Structures Exposed:	37,100	201,600
Depreciated Replacement Value of Structures and Contents Exposed:	$15.2 billion	$84.3 billion
Crops Exposed (acres):	20,100	32,200
Value of Crops Exposed:	$50.5 million	$68.4 million
Department of Defense Facilities Exposed:	1	1
Essential Facilities Exposed:	49	287
High Potential Loss Facilities Exposed:	42	139
Lifeline Utilities Exposed:	9	14
Transportation Facilities Exposed:	210	536
Transportation Segments Exposed (miles):	134	394
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	38	40
Total Sensitive Animal Species Exposed:	40	42

Santa Clara County

Figure D-85
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Santa Clara County.

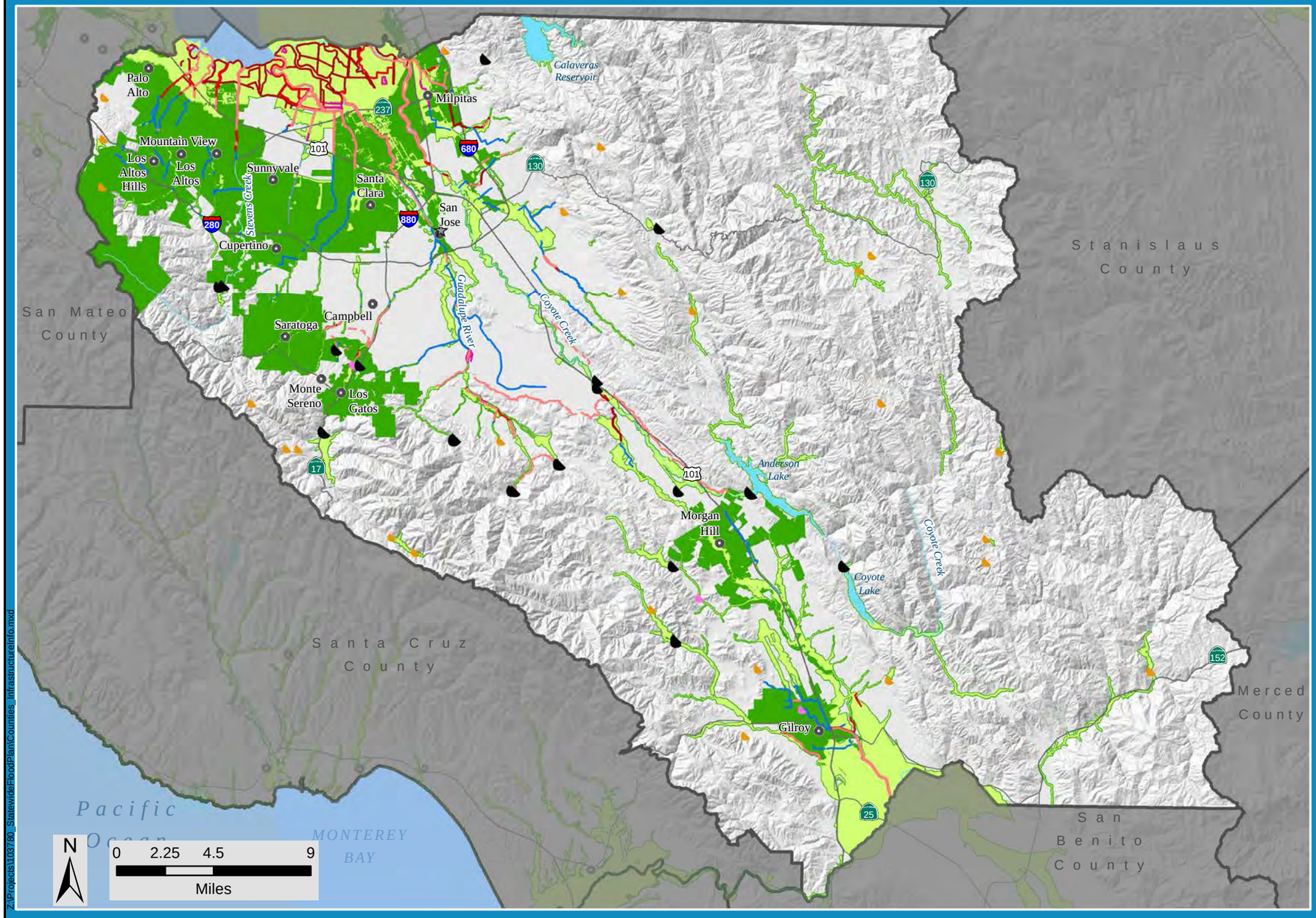
September 2013

US Army Corps of Engineers

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



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Santa Clara County

Flood Infrastructure GIS Data Received from Agencies Contacted:

- Dam
- Levee or Maintenance Road

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

No PDF/Hard Copy Data Received

Agencies Contacted as Part of SFMP:

Santa Clara Valley Water District

Planned Projects:

Number of Local Projects:	24
Estimated Cost of Local Projects:	$912.9 million
Number of USACE Projects:	5
Estimated Cost of USACE Projects:	$1 billion

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Santa Clara County

Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Figure D-86
Summary of Available Flood Infrastructure Information, Santa Clara County

September 2013

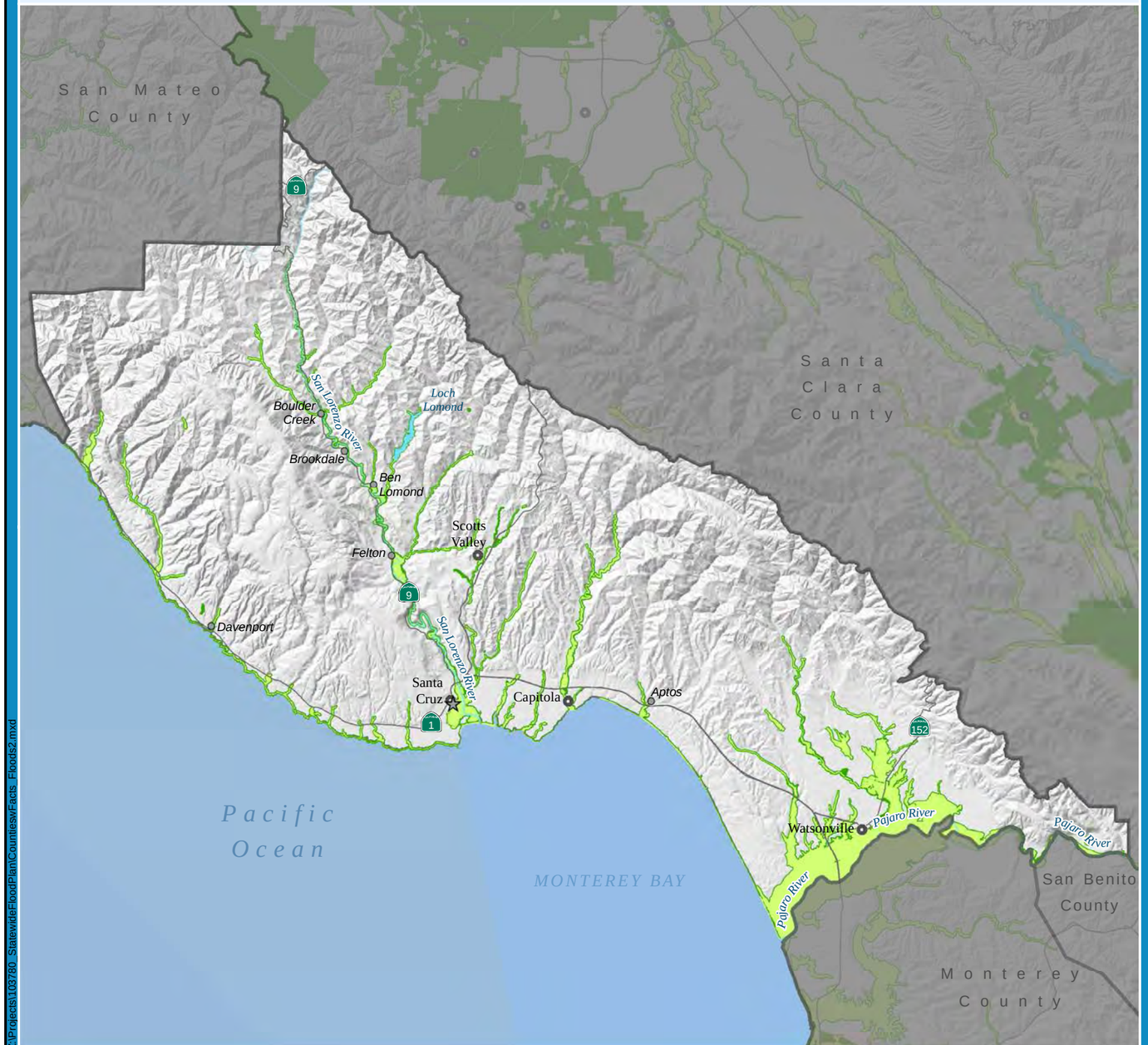
US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

100-year and 500-year Floodplains



N

0 2 4 8

Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

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Selected Flood Events by Event Year

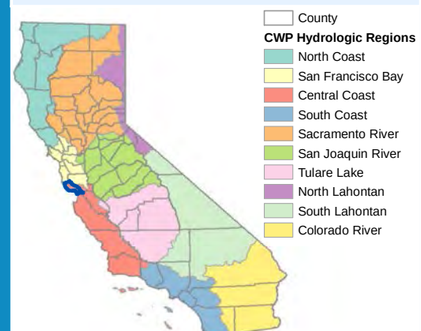
1822
1861-1862 Winter, The Great Flood
1889-1890 Winter
1911 Winter
1938 Winter, Great Flood
1955-1956 Winter, 1955 Christmas Flood
1958 Winter/Spring
1966-1967 Winter
1973 Winter
1980 Febrary 12-22, Winter Storms
1982-1983 Winter/Spring, Winter Storms
1986 February, St. Valentine's Day Storm
1995 Severe Winter Storms
1998 Spring, El Niño Floods
2002 December, El Niño Floods
2005-2006 Winter, New Year's Eve Flood of 2006
2006 March 29 - April 1, 2006 Spring Storms
2009 November 12-14
2010 February, Tsunami
2011 March, Tsunami

Types of Flooding

Likely:
Coastal
Debris Flow
Flash
Slow Rise
Stormwater

Present:
Engineered Structure Failure
Tsunami

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	285,700
Total Population:	255,400
Total Structures:	96,800
Total Depreciated Replacement Value of Structures and Contents:	$28.4 billion
Total Crop Acreage:	22,500
Total Value of Crops:	$263.5 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	12,500	13,200
Percent of Area Exposed:	4%	5%
Population Exposed:	27,100	30,100
Percent of Population Exposed:	11%	12%
Structures Exposed:	8,900	10,000
Depreciated Replacement Value of Structures and Contents Exposed:	$3.0 billion	$3.3 billion
Crops Exposed (acres):	5,300	5,500
Value of Crops Exposed:	$58.4 million	$60.8 million
Department of Defense Facilities Exposed:	0	0
Essential Facilities Exposed:	14	20
High Potential Loss Facilities Exposed:	8	8
Lifeline Utilities Exposed:	5	6
Transportation Facilities Exposed:	45	54
Transportation Segments Exposed (miles):	31	34
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	36	37
Total Sensitive Animal Species Exposed:	32	32

Santa Cruz County

Figure D-87
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Santa Cruz County.

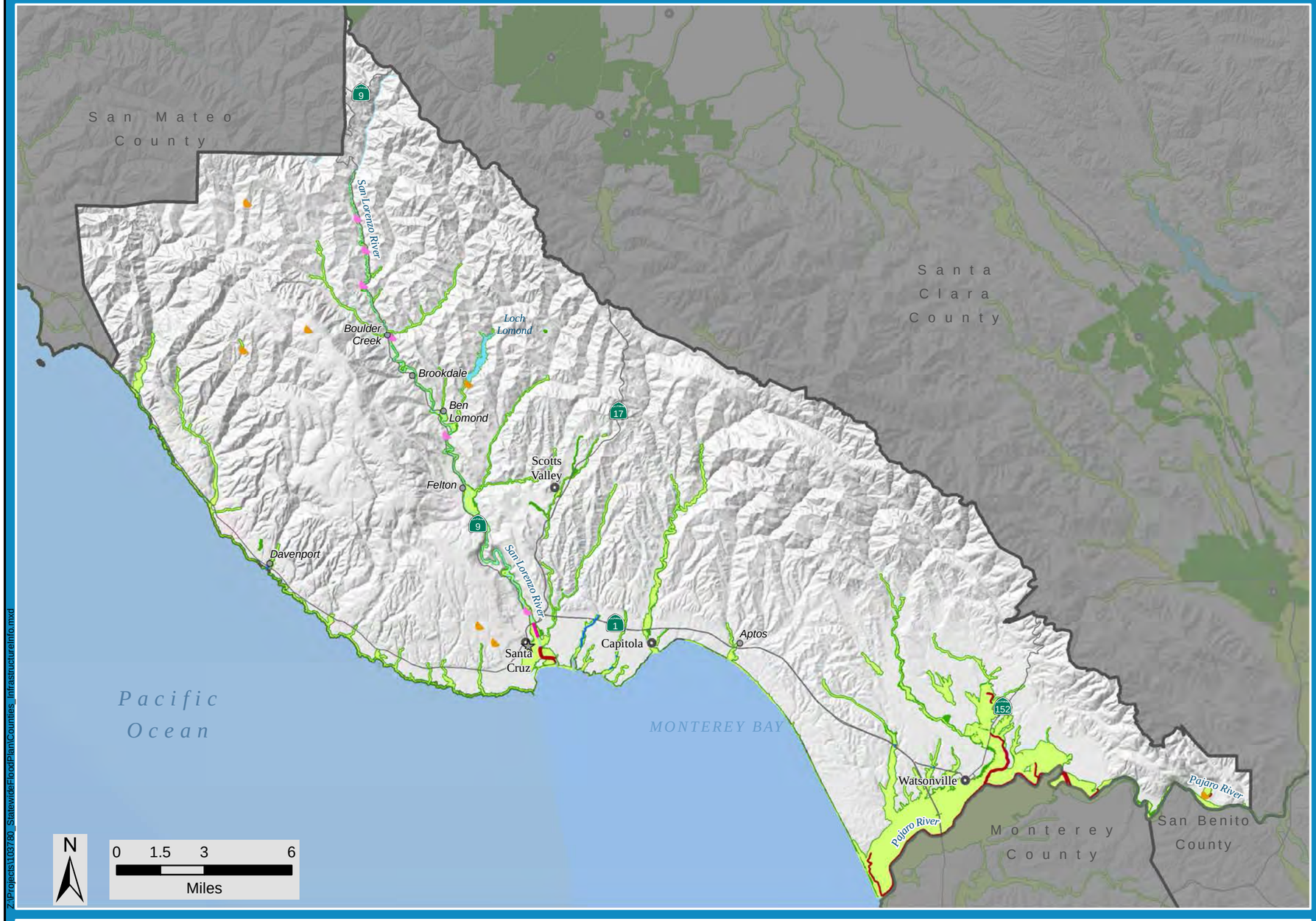
September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Santa Cruz County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Levee
Channel

Agencies Contacted as Part of SFMP:

Santa Cruz County Flood Control and Water Conservation District

Planned Projects:

Number of Local Projects:	16
Estimated Cost of Local Projects:	$187.5 million
Number of USACE Projects:	2
Estimated Cost of USACE Projects:	$245.6 million

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Santa Cruz County

Figure D-88

Summary of Available Flood Infrastructure Information, Santa Cruz County

September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

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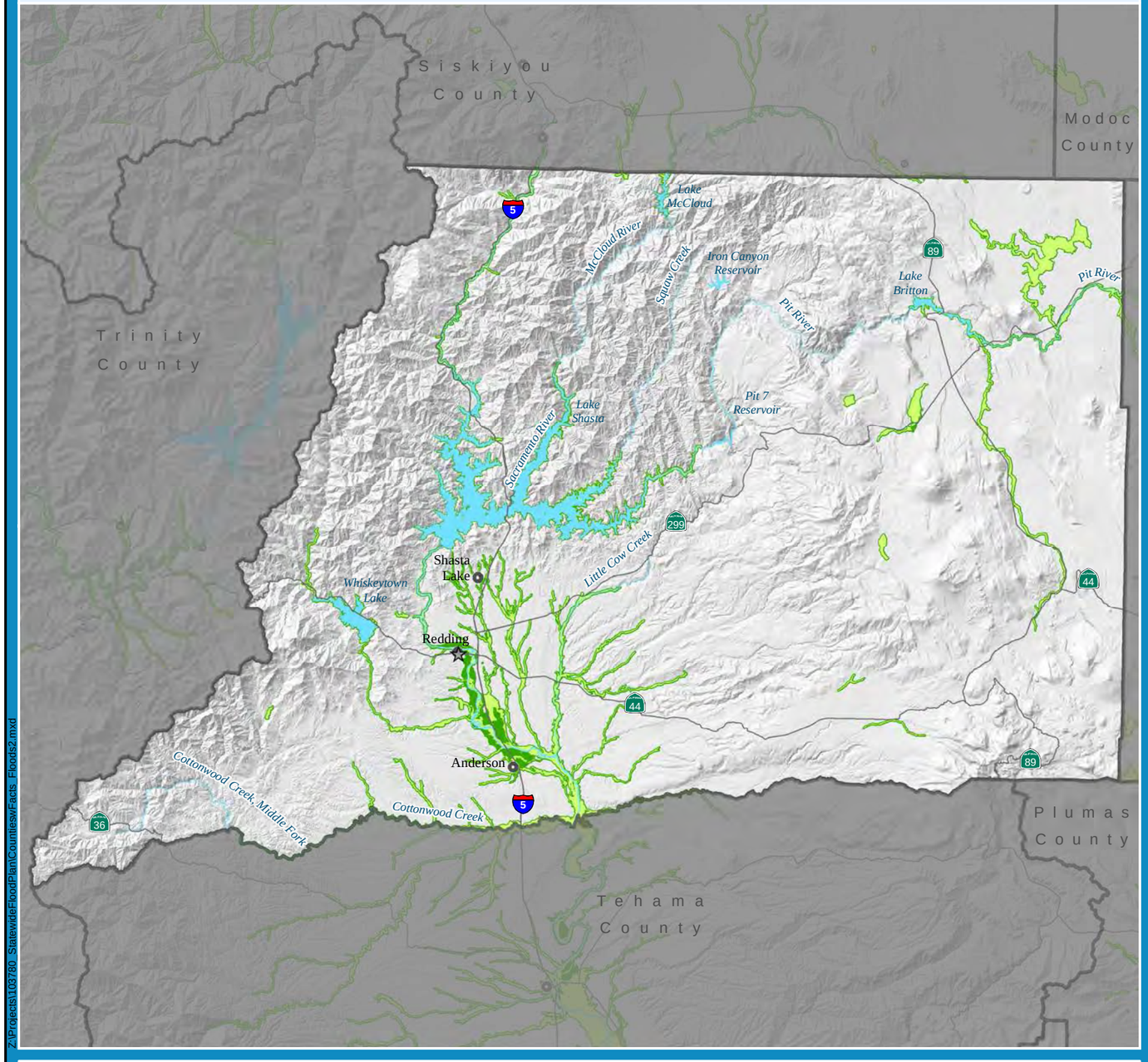
DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Shasta County

100-year and 500-year Floodplains



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N

0 4.5 9 18

Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Selected Flood Events by Event Year

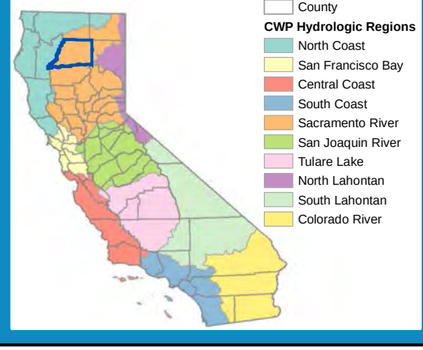
1805
1861-1862 Winter, The Great Flood
1878 Winter
1889-1890 Winter
1913-1914 Winter
1915 February
1937-1938 Winter, Great Flood
1942 Winter
1955-1956 Winter, 1955 Christmas Flood
1962 October
1964-1965 Winter, Christmas 1964 Disaster
1966-1967 Winter/Spring
1969-1970 Winter/Spring, Northern California Flooding
1974 Winter/Spring, 1974 Flood
1982-1983 Winter/Spring, Winter Storms
1986 February, St. Valentine's Day Storm
1995 Winter Storms
1996-1997 Winter, January 1997 Floods
2005-2006 Winter Storms
2006 May 10

Types of Flooding

Likely:
Debris Flow
Flash
Slow Rise
Stormwater

Present:
Alluvial Fan
Engineered Structure Failure

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	2.5 million
Total Population:	163,200
Total Structures:	69,900
Total Depreciated Replacement Value of Structures and Contents:	$15.0 billion
Total Crop Acreage:	60,200
Total Value of Crops:	$51.2 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	75,200	82,400
Percent of Area Exposed:	3%	3%
Population Exposed:	9,800	22,700
Percent of Population Exposed:	6%	14%
Structures Exposed:	4,400	9,900
Depreciated Replacement Value of Structures and Contents Exposed:	$848.6 million	$1.9 billion
Crops Exposed (acres):	8,800	10,800
Value of Crops Exposed:	$3.9 million	$6.7 million
Department of Defense Facilities Exposed:	0	0
Essential Facilities Exposed:	6	13
High Potential Loss Facilities Exposed:	7	7
Lifeline Utilities Exposed:	2	3
Transportation Facilities Exposed:	87	103
Transportation Segments Exposed (miles):	45	55
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	25	25
Total Sensitive Animal Species Exposed:	59	59

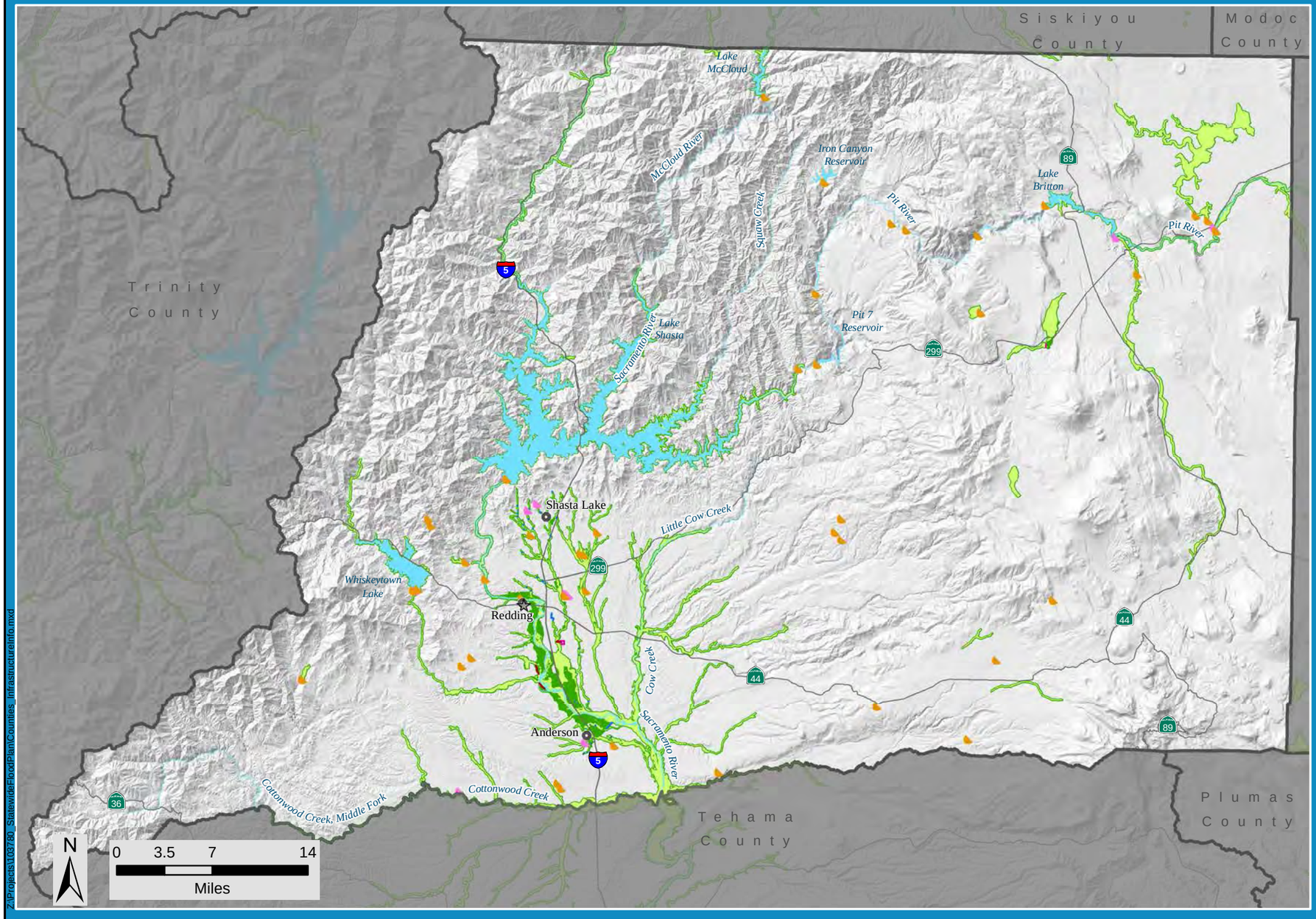
Figure D-89
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Shasta County.

September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

Summary of Available Flood Infrastructure Information



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Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Shasta County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Levee
Channel
Dam

Agencies Contacted as Part of SFMP:

Shasta County Water Agency

Planned Projects:

Number of Local Projects:	3
Estimated Cost of Local Projects:	$12.8 million
Number of USACE Projects:	0
Estimated Cost of USACE Projects:	none

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Figure D-90
Summary of Available Flood Infrastructure Information, Shasta County

September 2013

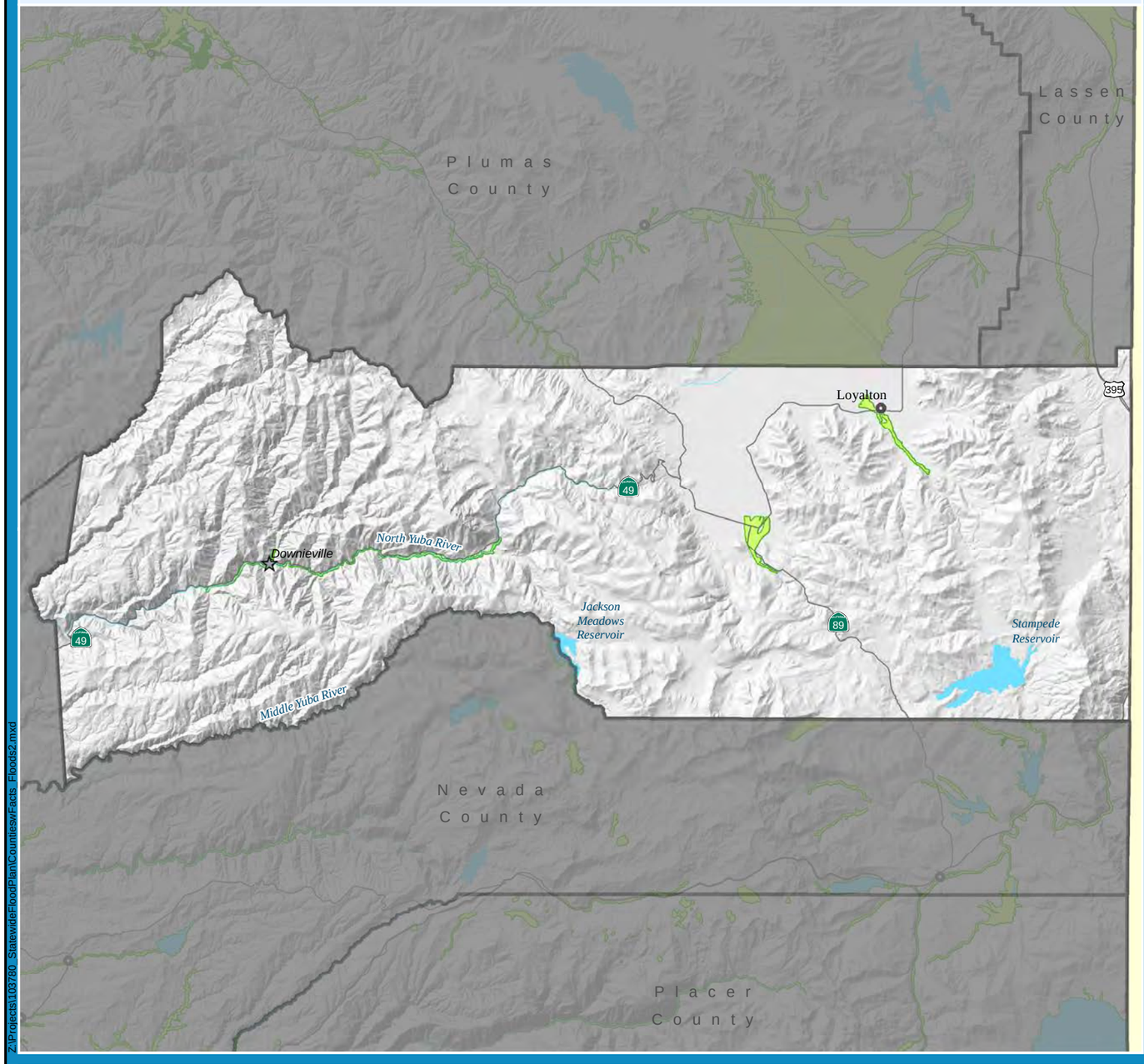
US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

100-year and 500-year Floodplains



N

0 2.75 5.5 11

Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

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Selected Flood Events by Event Year

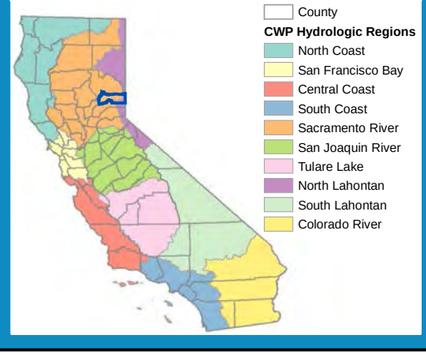
1861-1862 Winter, The Great Flood
1883 June 18
1937-1938 Winter, Great Flood
1942 Winter
1955-1956 Winter, 1955 Christmas Flood
1958 February 26
1962-1963 Winter
1963 February 26
1964-1965 Winter, Christmas 1964 Disaster
1968-1969 Winter 1968-1969 Storms
1986 February, St. Valentine's Day Storm
1992 Winter Storms
1993 Winter Storms
1995 Severe Winter Storms
1996-1997 Winter, January 1997 Floods
1997-1998 Winter
2006 Spring Storms
2008 January 5-14, 2008 Winter Storms
2011 March

Types of Flooding

Likely:
Flash
Slow-rise
Stormwater

Present:
Alluvial Fan
Debris Flow
Engineered Structure Failure

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	615,300
Total Population:	3,600
Total Structures:	2,600
Total Depreciated Replacement Value of Structures and Contents:	$359.7 million
Total Crop Acreage:	19,300
Total Value of Crops:	$1.1 million

Summary of Exposure to Flood Hazard Reported by County	100-yr Event	500-yr Event
Area Exposed (acres):	2,000	2,000
Percent of Area Exposed:	0%	0%
Population Exposed:	400	400
Percent of Population Exposed:	10%	10%
Structures Exposed:	300	300
Depreciated Replacement Value of Structures and Contents Exposed:	$34.4 million	$34.4 million
Crops Exposed (acres):	900	900
Value of Crops Exposed:	$21,600	$21,600
Department of Defense Facilities Exposed:	0	0
Essential Facilities Exposed:	4	4
High Potential Loss Facilities Exposed:	0	0
Lifeline Utilities Exposed:	0	0
Transportation Facilities Exposed:	3	3
Transportation Segments Exposed (miles):	7	7
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	7	7
Total Sensitive Animal Species Exposed:	7	7

Sierra County

Figure D-91
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Sierra County.

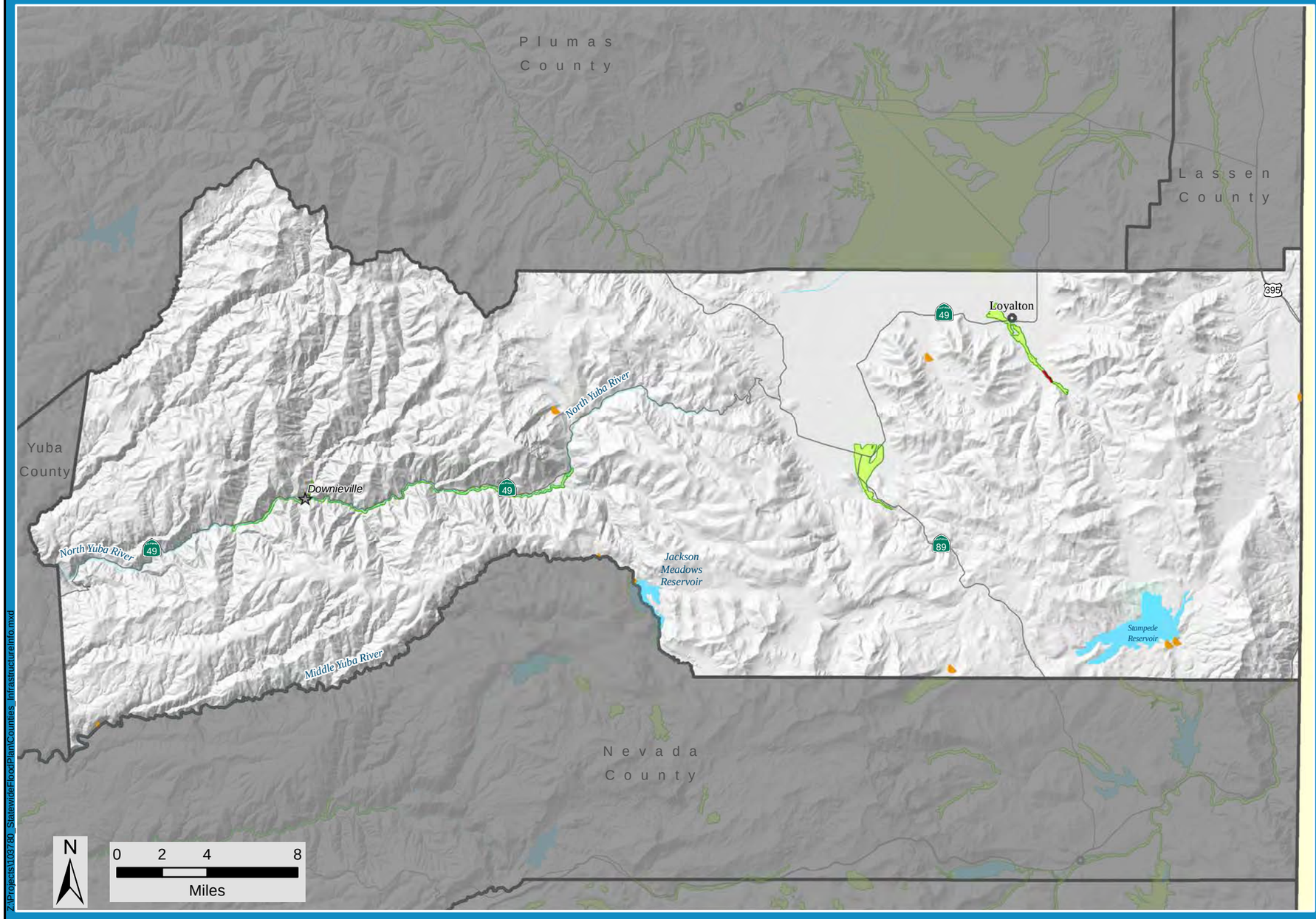
September 2013

US Army Corps of Engineers

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Sierra County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

No PDF/Hard Copy Data Received

Agencies Contacted as Part of SFMP:

Sierra County

Planned Projects:

Number of Local Projects:	0
Estimated Cost of Local Projects:	none
Number of USACE Projects:	0
Estimated Cost of USACE Projects:	none

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Sierra County

Figure D-92

Summary of Available Flood Infrastructure Information, Sierra County

September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

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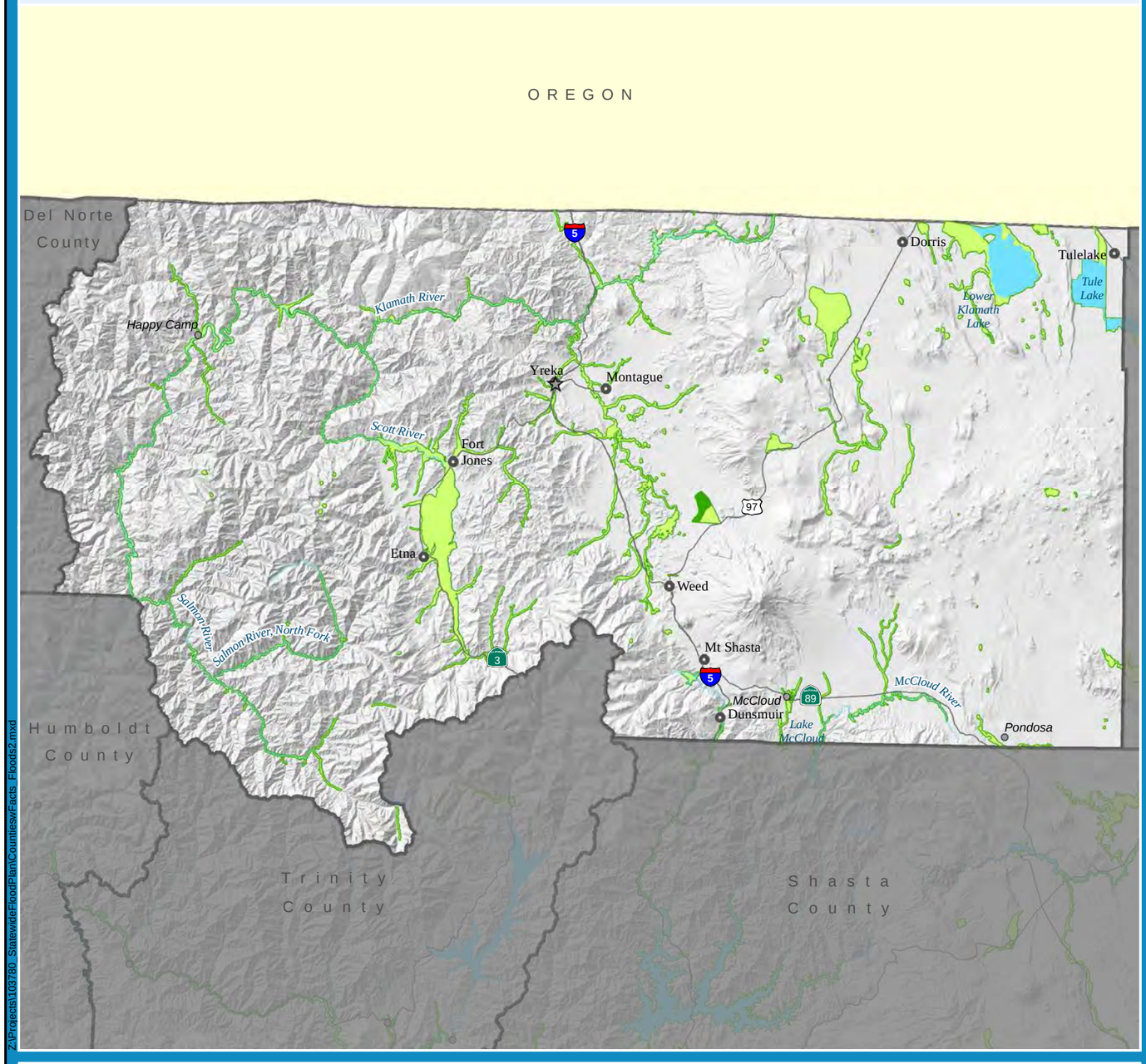
DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

100-year and 500-year Floodplains



N

0 5 10 20

Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

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DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Selected Flood Events by Event Year

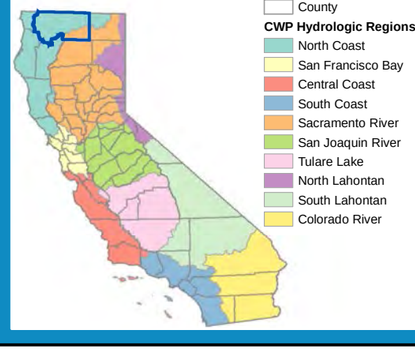
1852
1861-1862 Winter, The Great Flood
1913-1914 Winter
1937-1938 Winter, Great Flood
1955-1956 Winter, 1955 Christmas Flood
1962-1963 Winter
1964-1965 Winter, Christmas 1964 Disaster
1969-1970 Winter/Spring, Northern California Flooding
1973 January 12, 16, Severe Thunder Storm
1974 Winter, 1974 Flood
1982-1983 Winter/Spring, Winter Storms
1986 February, St. Valentine's Day Storm
1992-1993 Late Winter Storms
1995 Severe Winter Storms
1996-1997 Winter, January 1997 Floods
1998 Spring, El Niño Floods
2002 December, El Niño Floods
2005-2006 Winter, New Year's Eve Flood of 2006
2006 2006 Spring Storms
2010 January 17-21, 2010 Winter Storms

Types of Flooding

Likely:
Debris Flow
Flash
Slow-rise
Stormwater

Present:
Alluvial Fan
Engineered Structure Failure

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	4.1 million
Total Population:	44,300
Total Structures:	28,100
Total Depreciated Replacement Value of Structures and Contents:	$3.4 billion
Total Crop Acreage:	177,900
Total Value of Crops:	$174.9 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	135,200	138,300
Percent of Area Exposed:	3%	3%
Population Exposed:	3,900	5,800
Percent of Population Exposed:	9%	13%
Structures Exposed:	2,800	4,100
Depreciated Replacement Value of Structures and Contents Exposed:	$280.2 million	$428.8 million
Crops Exposed (acres):	36,800	37,100
Value of Crops Exposed:	$27.3 million	$27.4 million
Department of Defense Facilities Exposed:	0	0
Essential Facilities Exposed:	12	16
High Potential Loss Facilities Exposed:	7	7
Lifeline Utilities Exposed:	1	1
Transportation Facilities Exposed:	123	124
Transportation Segments Exposed (miles):	102	108
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	55	55
Total Sensitive Animal Species Exposed:	53	53

Siskiyou County

Figure D-93
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Siskiyou County.

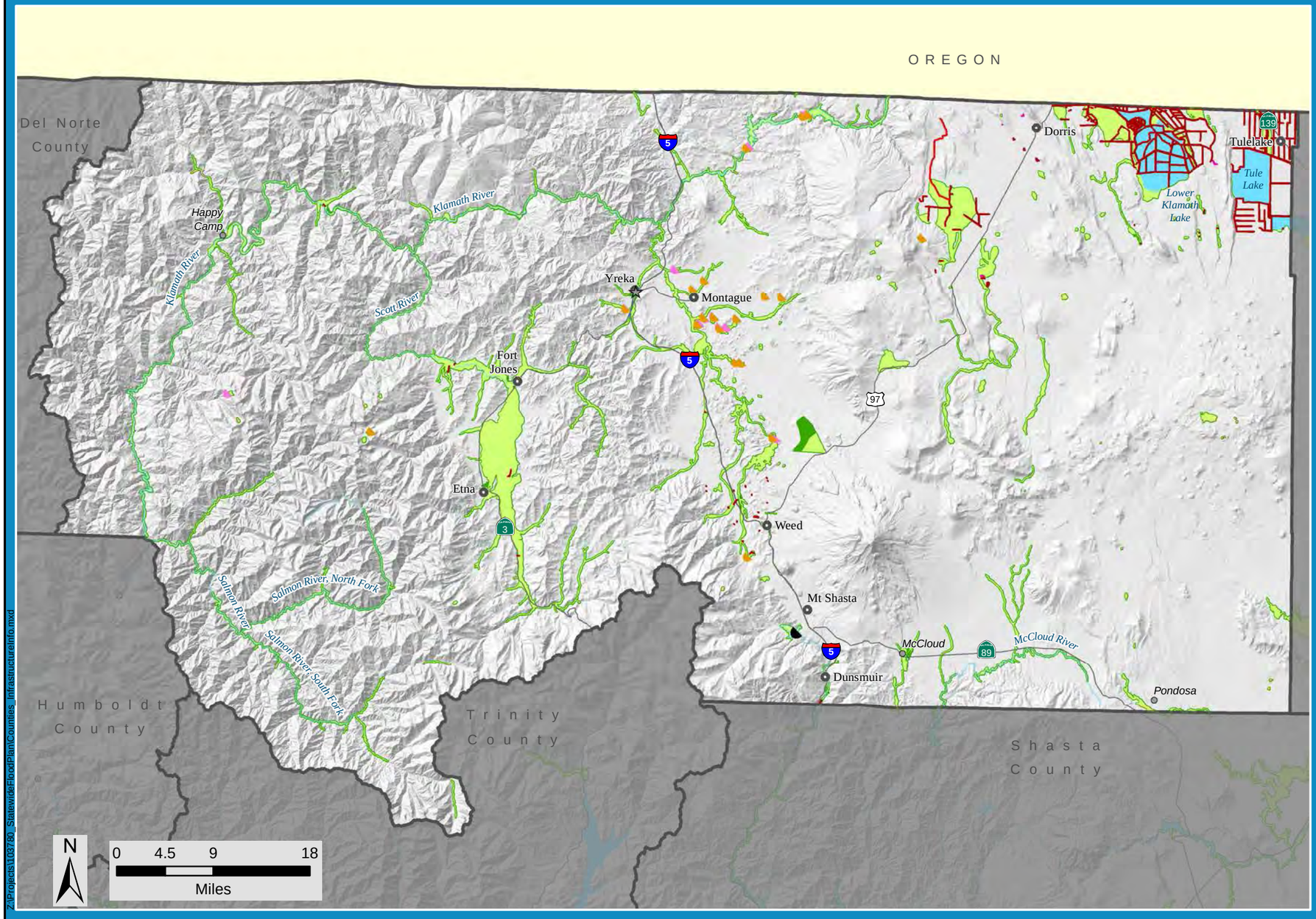
September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

Summary of Available Flood Infrastructure Information



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Siskiyou County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Dam

Agencies Contacted as Part of SFMP:

Siskiyou County
Town of McCloud

Planned Projects:

Number of Local Projects:	0
Estimated Cost of Local Projects:	none
Number of USACE Projects:	0
Estimated Cost of USACE Projects:	none

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Siskiyou County

Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Figure D-94
Summary of Available Flood Infrastructure Information, Siskiyou County

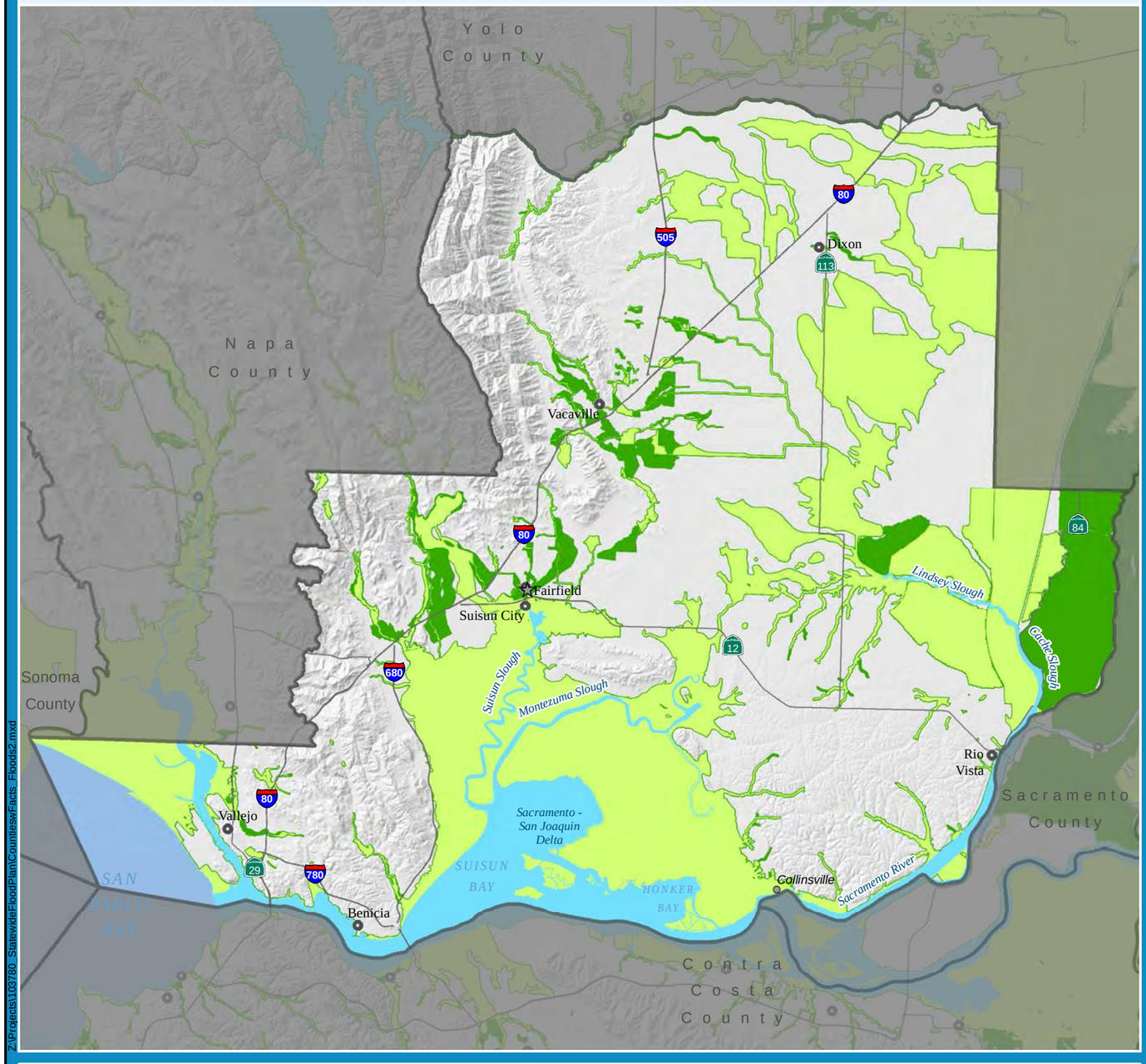
September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

100-year and 500-year Floodplains



N

0 2.25 4.5 9

Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

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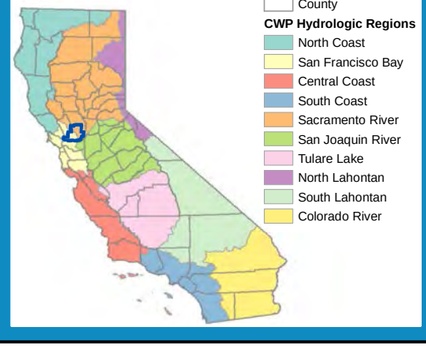
Selected Flood Events by Event Year

1798-1799 Winter
1861-1862 Winter, The Great Flood
1937-1938 Winter, Great Flood
1942 Winter
1955-1956 Winter, 1955 Christmas Flood
1958 Winter/Spring
1962-1963 Winter
1964-1965 Winter, Christmas 1964 Disaster
1968-1969 Winter 1968-1969 Storms
1969-1970 Winter/Spring, Northern California Flooding
1974 Winter/Spring, 1974 Flood
1981-1982 Winter/Spring Storms
1982-1983 Winter/Spring, Winter Storms
1986 February, St. Valentine's Day Storm
1995-1996 Winter, 1995 Christmas Floods
1996-1997 Winter, January 1997 Floods
1998 Winter/Spring, El Niño Floods
2002 December 13-21, The Mills Lane Flood
2005-2006 Winter Storms
2006 Spring Storms

Types of Flooding

Likely:	Present:
Debris Flow	Alluvial Fan
Flash	Coastal
Slow-rise	Engineered Structure Failure
Stormwater	

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	582,400
Total Population:	395,300
Total Structures:	127,300
Total Depreciated Replacement Value of Structures and Contents:	$40.1 billion
Total Crop Acreage:	199,000
Total Value of Crops:	$315.7 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	199,200	224,400
Percent of Area Exposed:	34%	39%
Population Exposed:	22,500	71,900
Percent of Population Exposed:	6%	18%
Structures Exposed:	7,200	23,100
Depreciated Replacement Value of Structures and Contents Exposed:	$2.5 billion	$7.6 billion
Crops Exposed (acres):	53,400	72,000
Value of Crops Exposed:	$95.4 million	$133.9 million
Department of Defense Facilities Exposed:	2	2
Essential Facilities Exposed:	7	35
High Potential Loss Facilities Exposed:	2	4
Lifeline Utilities Exposed:	4	4
Transportation Facilities Exposed:	71	100
Transportation Segments Exposed (miles):	67	86
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	43	43
Total Sensitive Animal Species Exposed:	46	46

Figure D-95
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Solano County.

September 2013

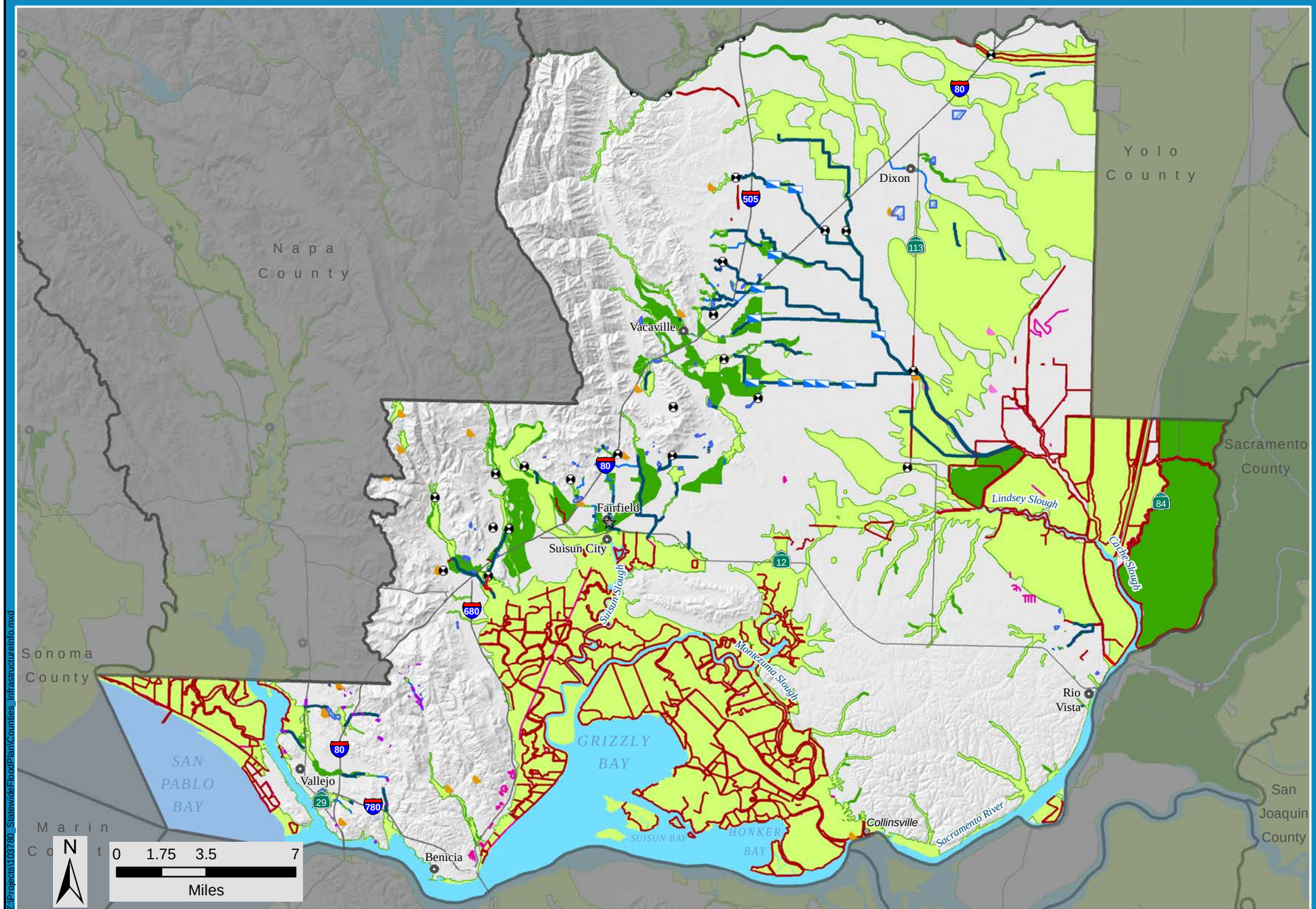
US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



Solano County

Flood Infrastructure GIS Data Received from Agencies Contacted:

- Grade Control Point
- Telemetry Stations for Flood Control
- Mellin Levee
- Storm Drain
- Stream, Channelized for Flood Control
- Ulatis Flood Control Channel
- Stormwater Detention Basin

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

No PDF/Hard Copy Data Received

Agencies Contacted as Part of SFMP:

Solano County Water Authority
Reclamation District 2068

Planned Projects:

Number of Local Projects:	4
Estimated Cost of Local Projects:	$20.4 million
Number of USACE Projects:	1
Estimated Cost of USACE Projects:	$9.8 million

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Figure D-96
Summary of Available Flood Infrastructure Information, Solano County

September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

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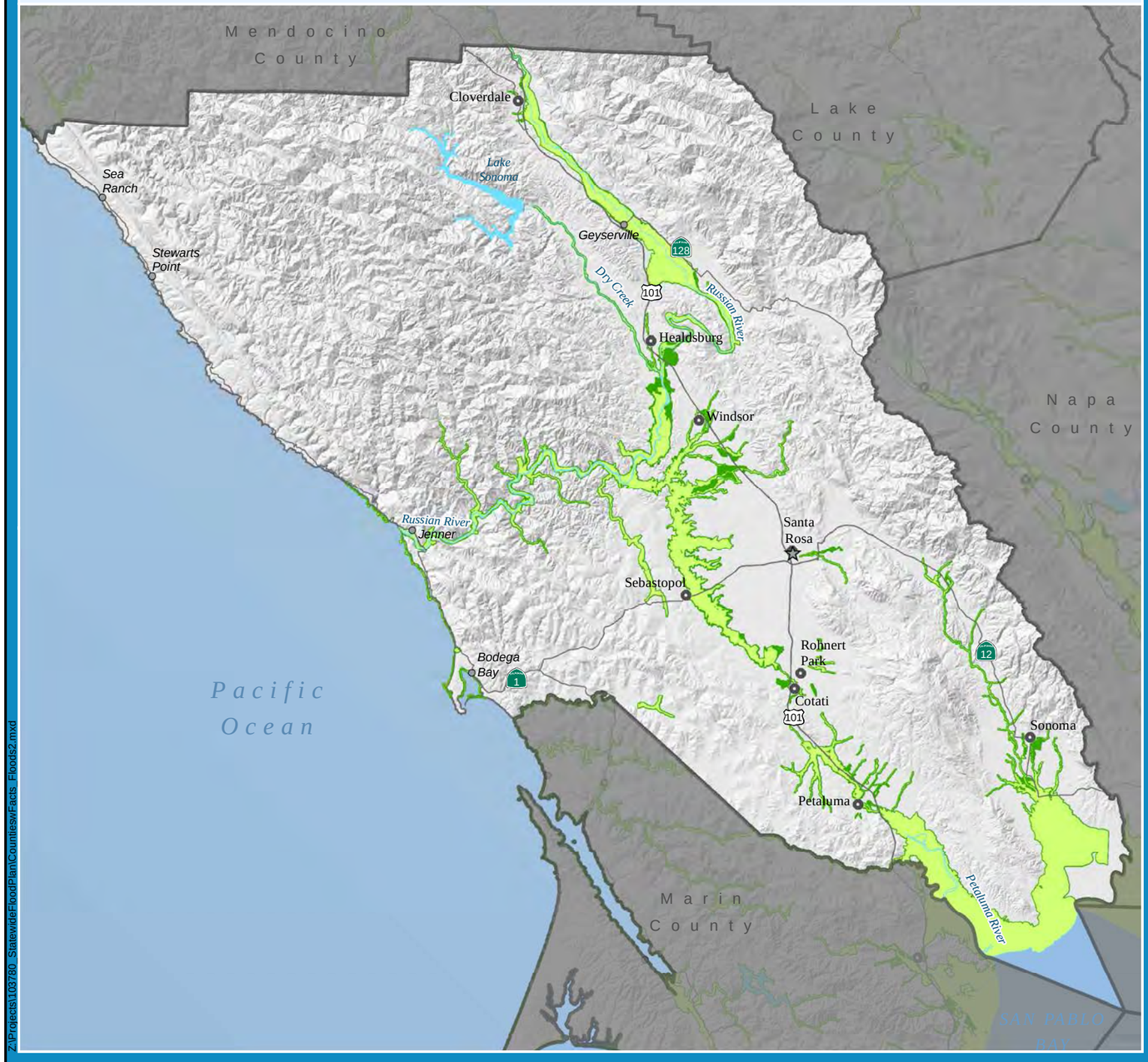
DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Sonoma County

100-year and 500-year Floodplains



N

0 3 6 12

Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

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DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Selected Flood Events by Event Year

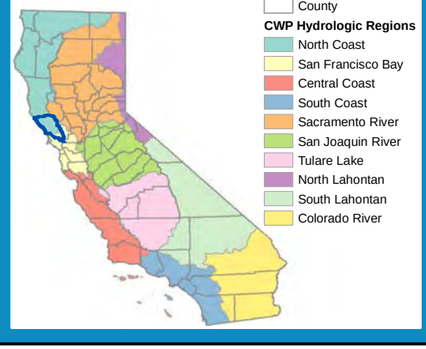
1798-1799 Winter
1861-1862 Winter, The Great Flood
1955-1956 Winter, 1955 Christmas Flood
1962 October
1962-1963 Winter
1964-1965 Winter, Christmas 1964 Disaster
1968-1969 Winter 1968-1969 Storms
1969-1970 Winter/Spring, Northern California Flooding
1981-1982 Winter/Spring Storms
1982-1983 Winter/Spring, Winter Storms
1986 Winter, St. Valentine's Day Storm
1992-1993 Late Winter Storms
1995-1996 Winter, 1995 Christmas Storms
1996-1997 Winter, January 1997 Floods
1998 Spring, El Niño Floods
1999 February 8-10, Winter Storms
2002 December, El Niño Floods
2005-2006 Winter Storms
2006 Spring Storms
2010 December 29-31

Types of Flooding

Likely:
Coastal
Debris Flow
Flash
Slow-rise
Stormwater

Present:
Alluvial Fan
Engineered Structure Failure
Tsunami

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	1.0 million
Total Population:	458,500
Total Structures:	183,400
Total Depreciated Replacement Value of Structures and Contents:	$55.7 billion
Total Crop Acreage:	93,700
Total Value of Crops:	$28.8 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	58,500	63,700
Percent of Area Exposed:	6%	6%
Population Exposed:	15,000	22,400
Percent of Population Exposed:	3%	5%
Structures Exposed:	7,900	11,600
Depreciated Replacement Value of Structures and Contents Exposed:	$2.1 billion	$3.3 billion
Crops Exposed (acres):	22,300	24,500
Value of Crops Exposed:	$8.2 million	$8.4 million
Department of Defense Facilities Exposed:	1	1
Essential Facilities Exposed:	8	14
High Potential Loss Facilities Exposed:	3	6
Lifeline Utilities Exposed:	1	3
Transportation Facilities Exposed:	114	130
Transportation Segments Exposed (miles):	64	73
Native American Tribal Land Exposed (acres):	9	9
Total Sensitive Plant Species Exposed:	62	62
Total Sensitive Animal Species Exposed:	38	38

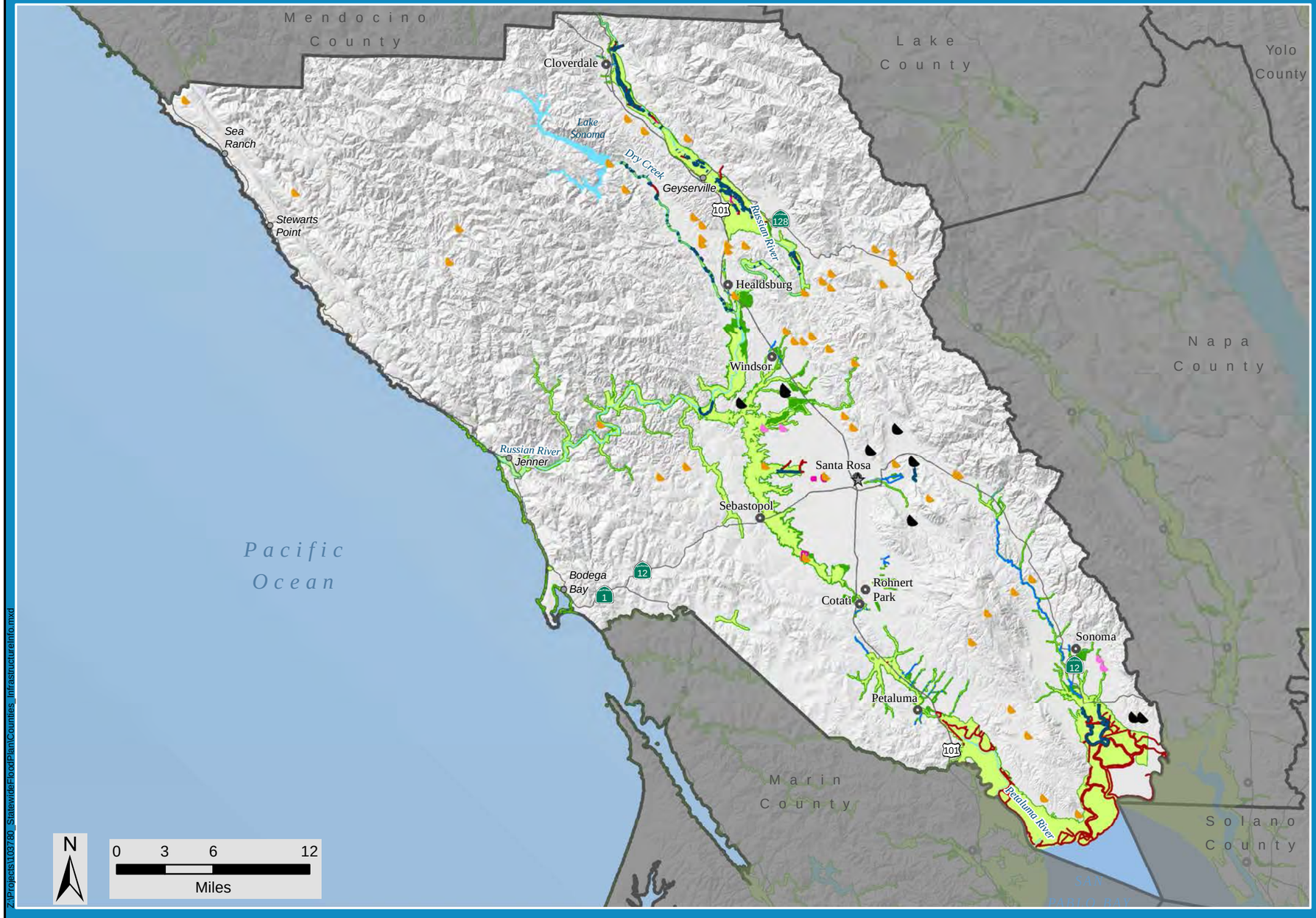
Figure D-97
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Sonoma County.

September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

Summary of Available Flood Infrastructure Information



Sonoma County

Flood Infrastructure GIS Data Received from Agencies Contacted:

Channel Improvement

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

No PDF/Hard Copy Data Received

Agencies Contacted as Part of SFMP:

Sonoma County Water Agency

Planned Projects:

Number of Local Projects:	9
Estimated Cost of Local Projects:	$83.8 million
Number of USACE Projects:	1
Estimated Cost of USACE Projects:	$46.1 million

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Figure D-98
Summary of Available Flood Infrastructure Information, Sonoma County

September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

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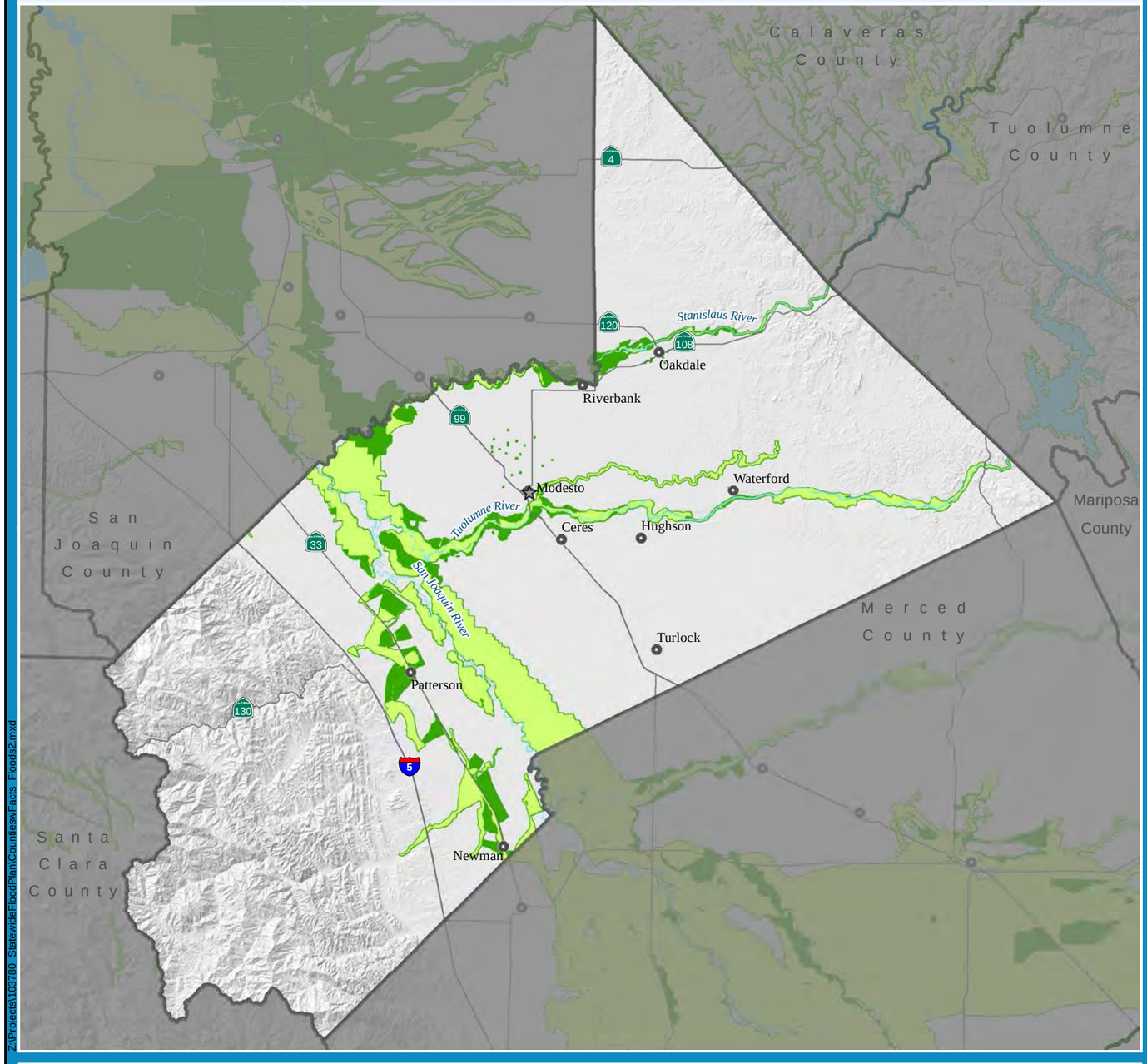
DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

100-year and 500-year Floodplains



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Selected Flood Events by Event Year

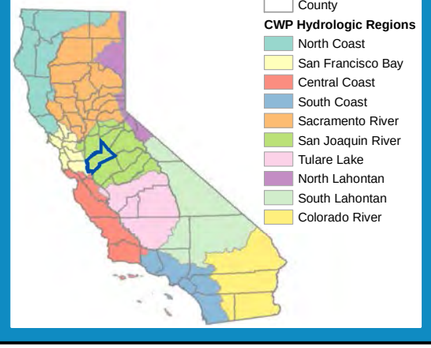
1861-1862 Winter, The Great Flood
1871-1872 Winter
1890 Winter/Spring
1938 Winter, Great Flood
1950 Winter
1955-1956 Winter, 1955 Christmas Flood
1962-1963 Winter
1964-1965 Winter
1966-1967 Winter
1967 Summer
1968-1969 Winter 1968-1969 Storms
1969-1970 Winter/Spring, Northern California Flooding
1980 Winter
1982-1983 Winter/Spring, Winter Storms
1986 Winter, St. Valentine's Day Storm
1995-1996 Winter, 1995 Christmas Floods
1996-1997 Winter, January 1997 Floods
1997-1998 Winter/Spring, El Niño Floods
2006 2006 Spring Storms
2011 March

Types of Flooding

Likely:
Flash
Slow-rise
Stormwater

Present:
Engineered Structure Failure

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	970,200
Total Population:	447,000
Total Structures:	151,500
Total Depreciated Replacement Value of Structures and Contents:	$38.8 billion
Total Crop Acreage:	376,900
Total Value of Crops:	$857.3 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	62,000	81,300
Percent of Area Exposed:	6%	8%
Population Exposed:	14,500	36,600
Percent of Population Exposed:	3%	8%
Structures Exposed:	3,900	10,400
Depreciated Replacement Value of Structures and Contents Exposed:	$802.2 million	$2.2 billion
Crops Exposed (acres):	40,300	54,500
Value of Crops Exposed:	$54.4 million	$91.8 million
Department of Defense Facilities Exposed:	0	0
Essential Facilities Exposed:	6	23
High Potential Loss Facilities Exposed:	1	1
Lifeline Utilities Exposed:	1	1
Transportation Facilities Exposed:	37	51
Transportation Segments Exposed (miles):	29	40
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	19	19
Total Sensitive Animal Species Exposed:	34	34

Stanislaus County

Figure D-99
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Stanislaus County.

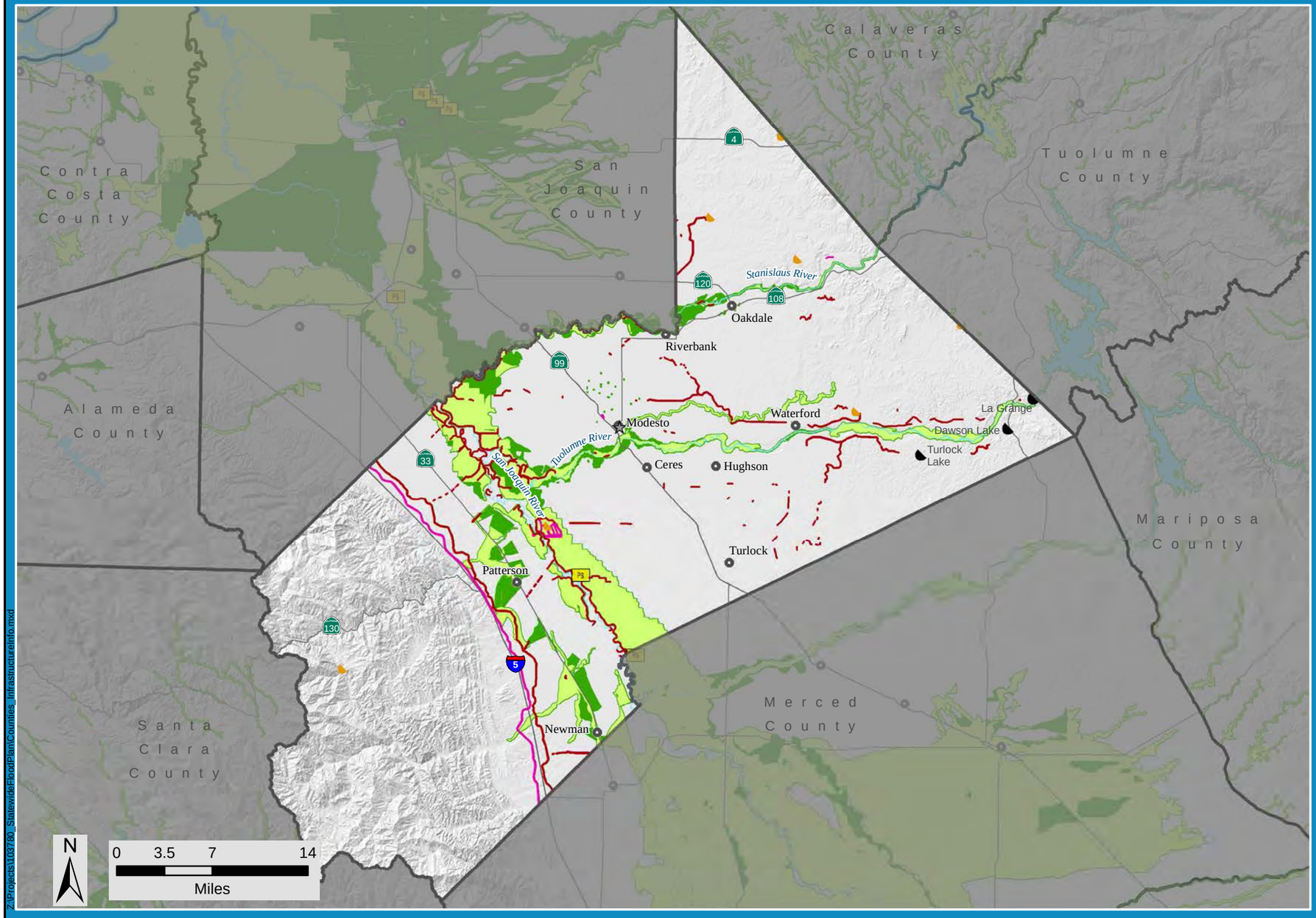
September 2013

US Army Corps of Engineers

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



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Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Stanislaus County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Canal
Channel

Agencies Contacted as Part of SFMP:

Stanislaus County Public Works
Turlock Irrigation District

Planned Projects:

Number of Local Projects:	6
Estimated Cost of Local Projects:	$30.2 million
Number of USACE Projects:	1
Estimated Cost of USACE Projects:	$3.7 million

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Stanislaus County

Figure D100
Summary of Available Flood Infrastructure Information, Stanislaus County

September 2013

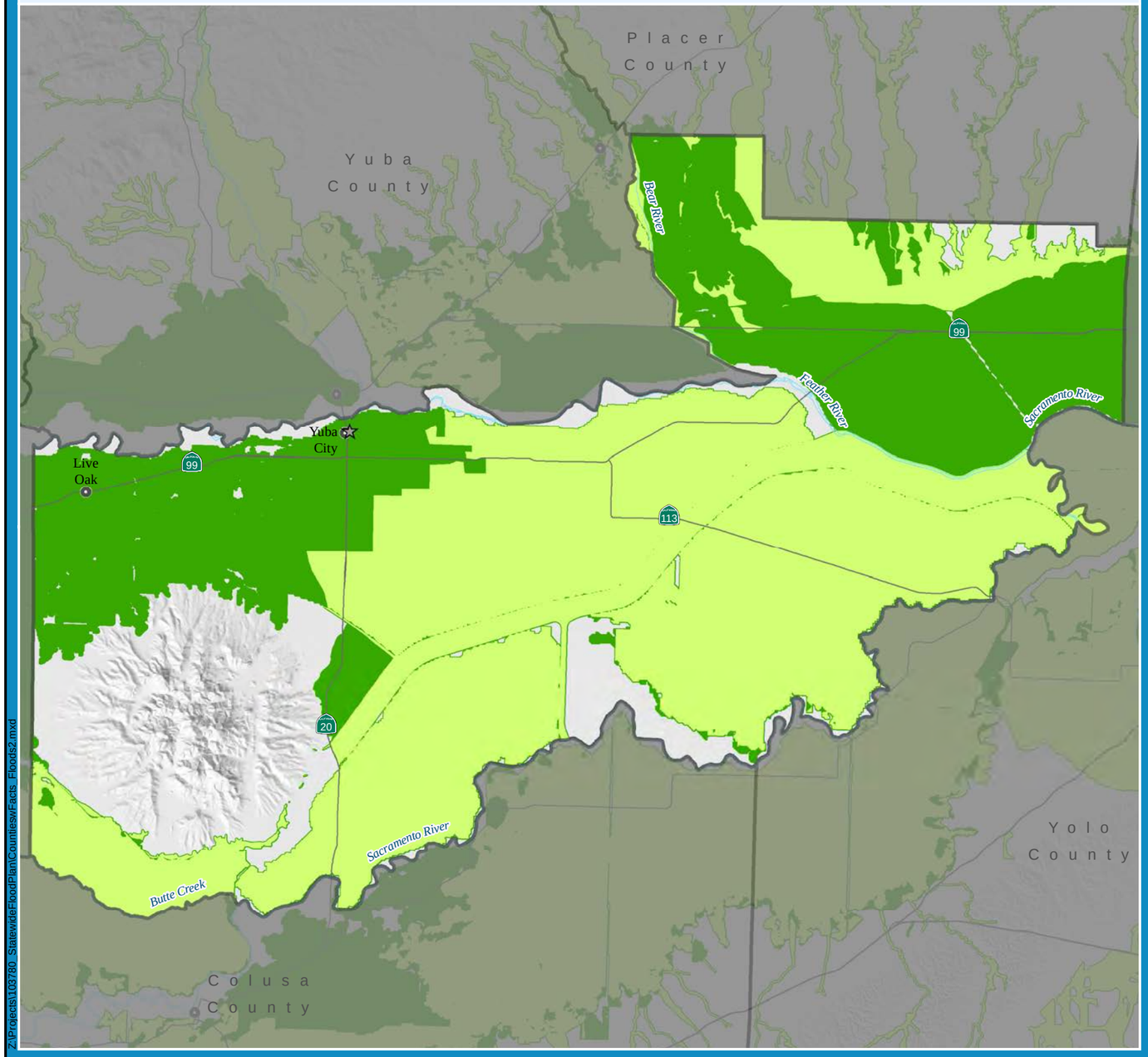
US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

100-year and 500-year Floodplains



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0 2 4 8 Miles

City | Highway | 100-yr Floodplain | Major Water Body

Populated Place | Major River | 500-yr Floodplain | County

Selected Flood Events by Event Year

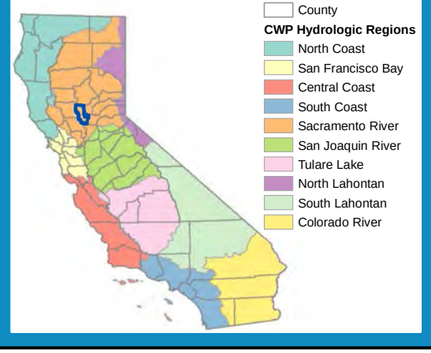
1805
1861-1862 Winter, The Great Flood
1937-1938 Winter, Great Flood
1950 Fall/Winter
1958 Winter/Spring
1962 October
1962-1963 Winter
1964-1965 Winter, Christmas 1964 Disaster
1966-1967 Winter/Spring
1973 Winter/Spring
1982-1983 Winter/Spring, Winter Storms
1986 February, St. Valentine's Day Storm
1996-1997 Winter, January 1997 Floods
1998 Spring, El Niño Floods
2000 January 23
2006 May 10
2008 Winter Storms
2009 March 3
2011 March
2012 Fall/Winter

Types of Flooding

Likely:
Flash
Slow-rise
Stormwater

Present:
Debris Flow
Engineered Structure Failure

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	389,300
Total Population:	78,900
Total Structures:	28,500
Total Depreciated Replacement Value of Structures and Contents:	$7.3 billion
Total Crop Acreage:	282,500
Total Value of Crops:	$394.2 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	195,000	308,400
Percent of Area Exposed:	50%	79%
Population Exposed:	6,200	74,400
Percent of Population Exposed:	8%	94%
Structures Exposed:	2,100	26,200
Depreciated Replacement Value of Structures and Contents Exposed:	$405.7 million	$5.1 billion
Crops Exposed (acres):	164,300	256,300
Value of Crops Exposed:	$218.8 million	$343.2 million
Department of Defense Facilities Exposed:	0	0
Essential Facilities Exposed:	8	56
High Potential Loss Facilities Exposed:	1	2
Lifeline Utilities Exposed:	3	7
Transportation Facilities Exposed:	51	98
Transportation Segments Exposed (miles):	58	126
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	6	9
Total Sensitive Animal Species Exposed:	18	21

Sutter County

Figure D101
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Sutter County.

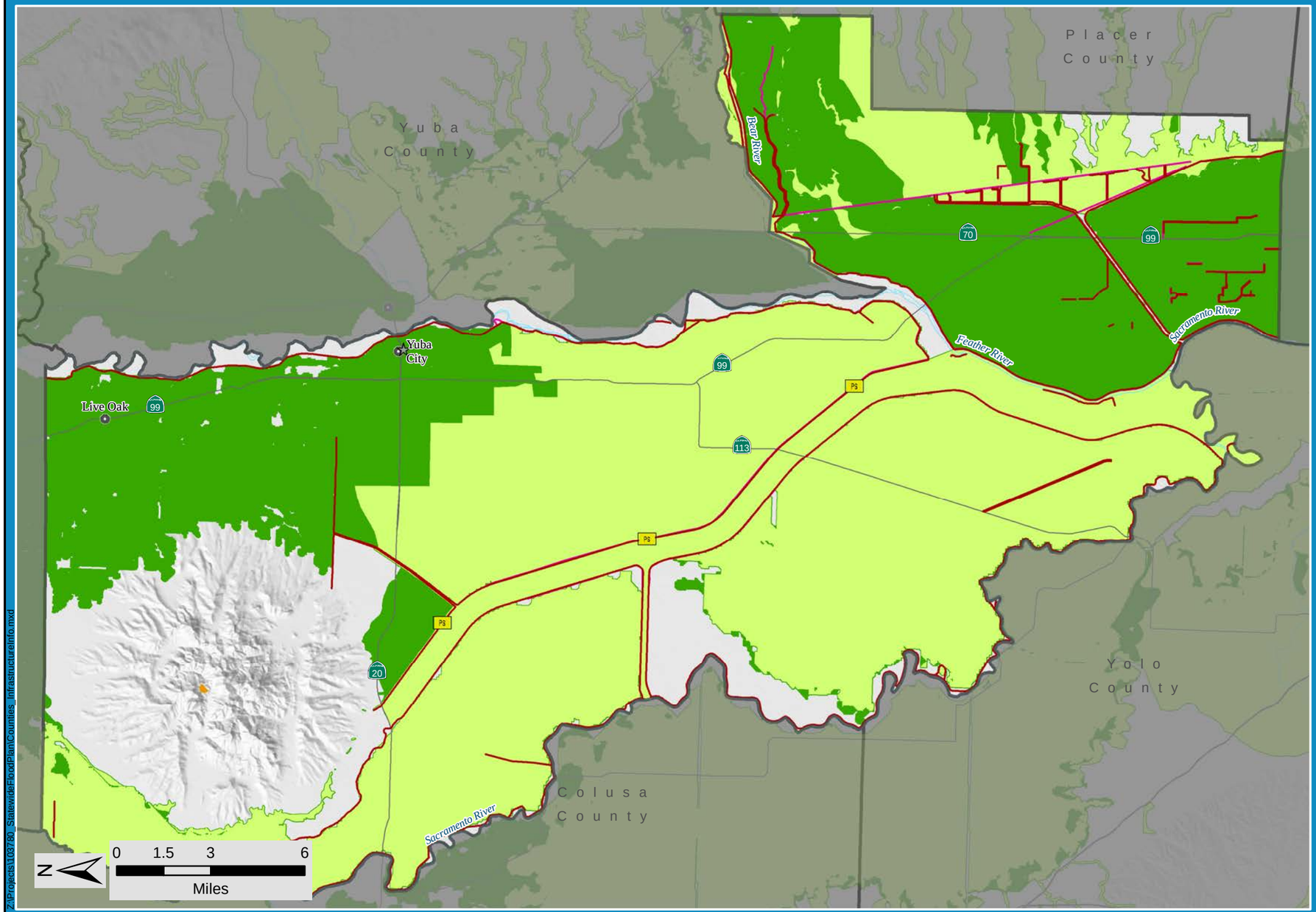
September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



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Sutter County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Levees
Channel
Pump Station
Detention Basin

Agencies Contacted as Part of SFMP:

Sutter Butte Flood Control Agency
Sutter County

Planned Projects:

Number of Local Projects:	9
Estimated Cost of Local Projects:	$197.8 million
Number of USACE Projects:	0
Estimated Cost of USACE Projects:	none

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Figure D102
Summary of Available Flood Infrastructure Information, Sutter County

September 2013

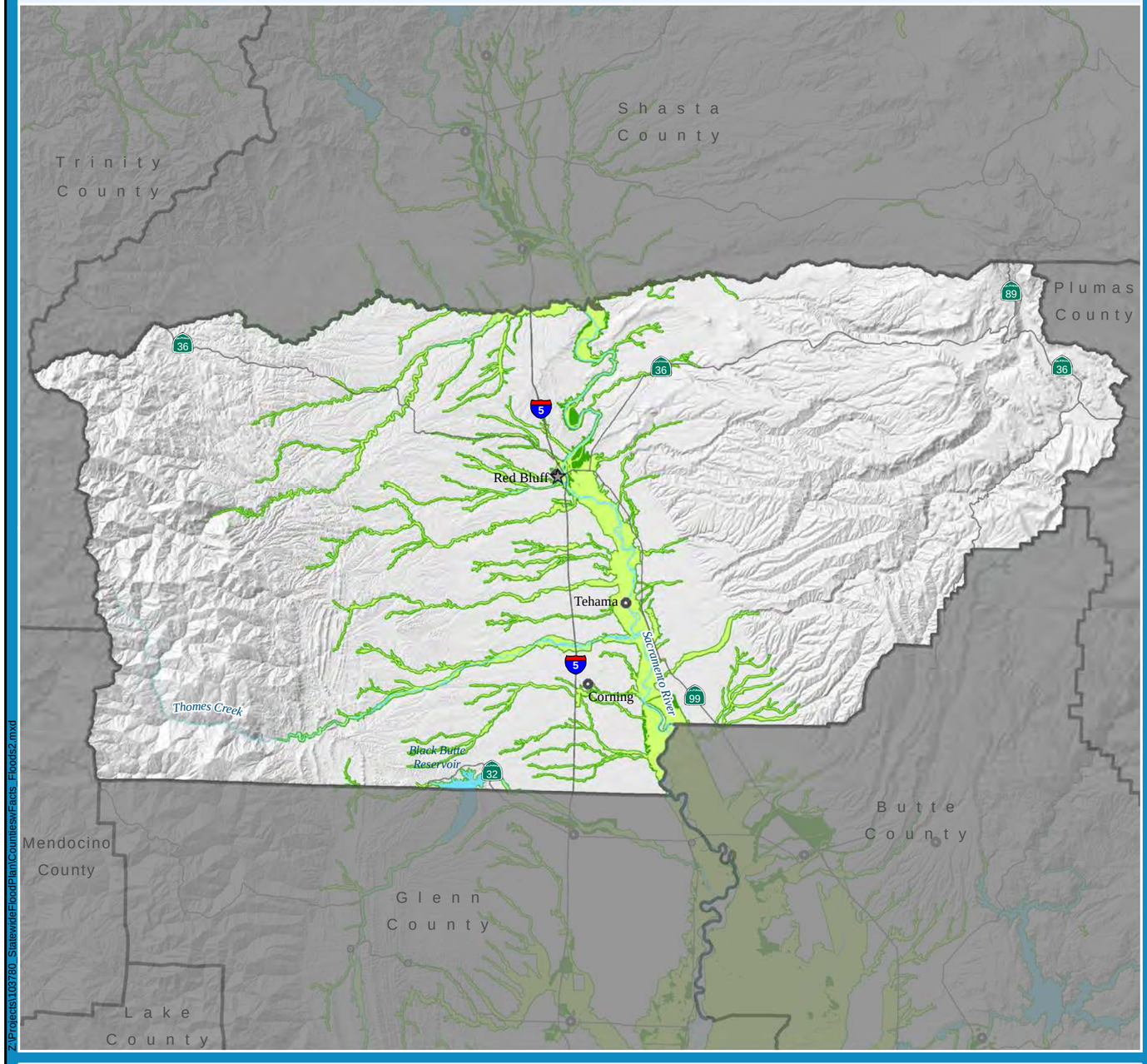
US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

100-year and 500-year Floodplains



N

0 4.5 9 18

Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

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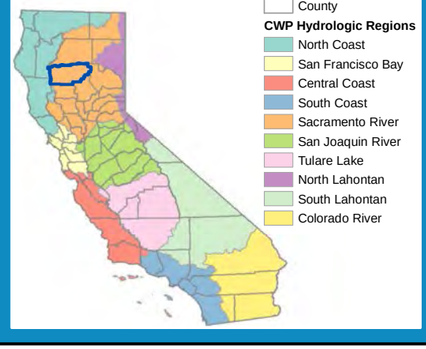
Selected Flood Events by Event Year

1805
1825-1826
1852-1853 Winter
1861-1862 Winter, The Great Flood
1881 Winter
1889-1890 Winter
1892-1893 Winter
1895 January
1913-1914 Winter
1937-1938 Winter, Great Flood
1955-1956 Winter, 1955 Christmas Flood
1962-1963 Winter
1964-1965 Winter, Christmas 1964 Disaster
1966-1967 Winter
1982-1983 Winter/Spring, Winter Storms
1986 February, St. Valentine's Day Storm
1992 Winter Storms
1995 Severe Winter Storms
1996-1997 Winter, January 1997 Floods
1998 Spring, El Niño Floods

Types of Flooding

Likely:	Present:
Flash	Alluvial Fan
Slow-rise	Engineered Structure Failure
Stormwater	

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	1.9 million
Total Population:	56,000
Total Structures:	25,500
Total Depreciated Replacement Value of Structures and Contents:	$4.1 billion
Total Crop Acreage:	112,400
Total Value of Crops:	$166.9 million

Summary of Exposure to Flood Hazard Reported by County	100-yr Event	500-yr Event
Area Exposed (acres):	86,800	90,300
Percent of Area Exposed:	5%	5%
Population Exposed:	8,100	11,300
Percent of Population Exposed:	14%	20%
Structures Exposed:	3,800	5,300
Depreciated Replacement Value of Structures and Contents Exposed:	$625.0 million	$887.7 million
Crops Exposed (acres):	24,300	25,900
Value of Crops Exposed:	$62.3 million	$66.2 million
Department of Defense Facilities Exposed:	1	1
Essential Facilities Exposed:	5	6
High Potential Loss Facilities Exposed:	4	4
Lifeline Utilities Exposed:	2	2
Transportation Facilities Exposed:	130	135
Transportation Segments Exposed (miles):	32	34
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	20	20
Total Sensitive Animal Species Exposed:	35	35

Tehama County

Figure D103
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Tehama County.

September 2013

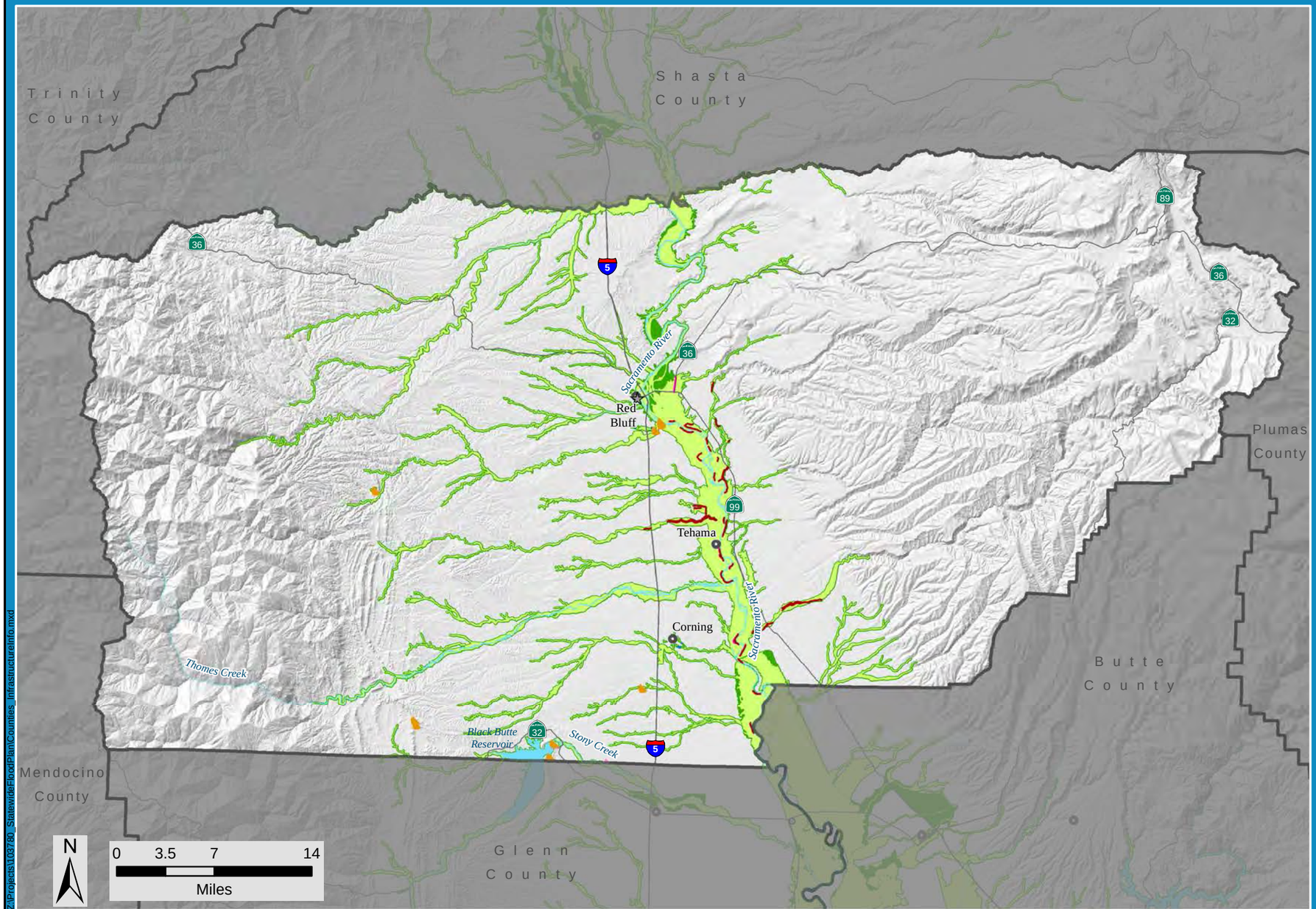
US Army Corps of Engineers

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



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Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Tehama County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

No PDF/Hard Copy Data Received

Agencies Contacted as Part of SFMP:

Tehama County Flood Control and Water Conservation District
City of Corning
City of Red Bluff
Gerber/Las Flores CSD

Planned Projects:

Number of Local Projects:	6
Estimated Cost of Local Projects:	$6.8 million
Number of USACE Projects:	0
Estimated Cost of USACE Projects:	none

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bulletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Figure D104
Summary of Available Flood Infrastructure Information, Tehama County

September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

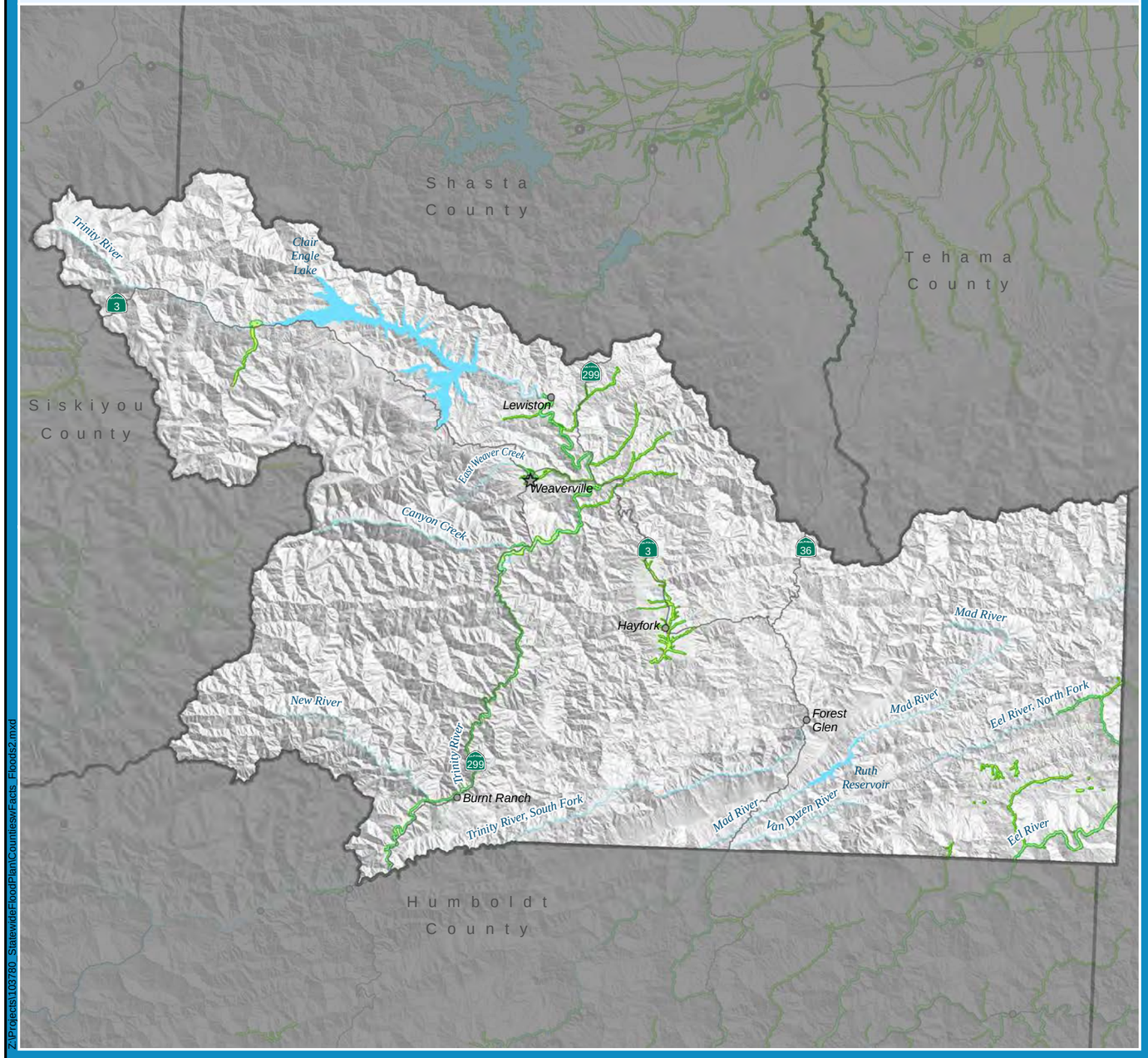
FloodSAFE CALIFORNIA

Tehama County

DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Trinity County

100-year and 500-year Floodplains



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Selected Flood Events by Event Year

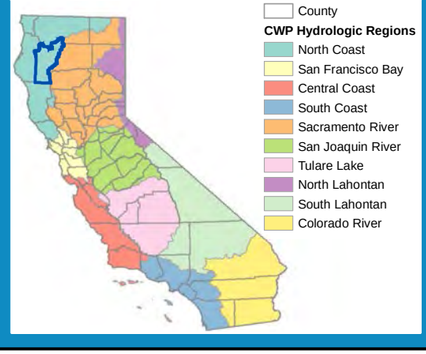
1861-1862 Winter, The Great Flood
1937-1938 Winter, Great Flood
1955-1956 Winter, 1955 Christmas Flood
1962 October
1963 Winter
1964-1965 Winter, Christmas 1964 Disaster
1968-1969 Winter 1968-1969 Storms
1969-1970 Winter/Spring, Northern California Flooding
1973 November 3-17
1982-1983 Winter/Spring, Winter Storms
1986 February, St. Valentine's Day Storm
1992 December
1993 January, Late Winter Storms
1995 Severe Winter Storms
1996-1997 Winter, January 1997 Floods
1998 March
2002 December, El Niño Floods
2005-2006 Winter, New Year's Eve Flood of 2006
2006 Spring Storms
2011 March

Types of Flooding

Likely:
Debris Flow
Flash
Slow-rise
Stormwater

Present:
Engineered Structure Failure

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	2.1 million
Total Population:	13,000
Total Structures:	8,500
Total Depreciated Replacement Value of Structures and Contents:	$1.1 billion
Total Crop Acreage:	2,800
Total Value of Crops:	$1.1 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	10,300	10,900
Percent of Area Exposed:	1%	1%
Population Exposed:	1,000	1,100
Percent of Population Exposed:	7%	9%
Structures Exposed:	600	700
Depreciated Replacement Value of Structures and Contents Exposed:	$81.7 million	$98.8 million
Crops Exposed (acres):	200	300
Value of Crops Exposed:	$17,900	$19,000
Department of Defense Facilities Exposed:	0	0
Essential Facilities Exposed:	8	9
High Potential Loss Facilities Exposed:	1	1
Lifeline Utilities Exposed:	0	0
Transportation Facilities Exposed:	13	17
Transportation Segments Exposed (miles):	21	21
Native American Tribal Land Exposed (acres):	30	30
Total Sensitive Plant Species Exposed:	11	11
Total Sensitive Animal Species Exposed:	19	19

Figure D105
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Trinity County.

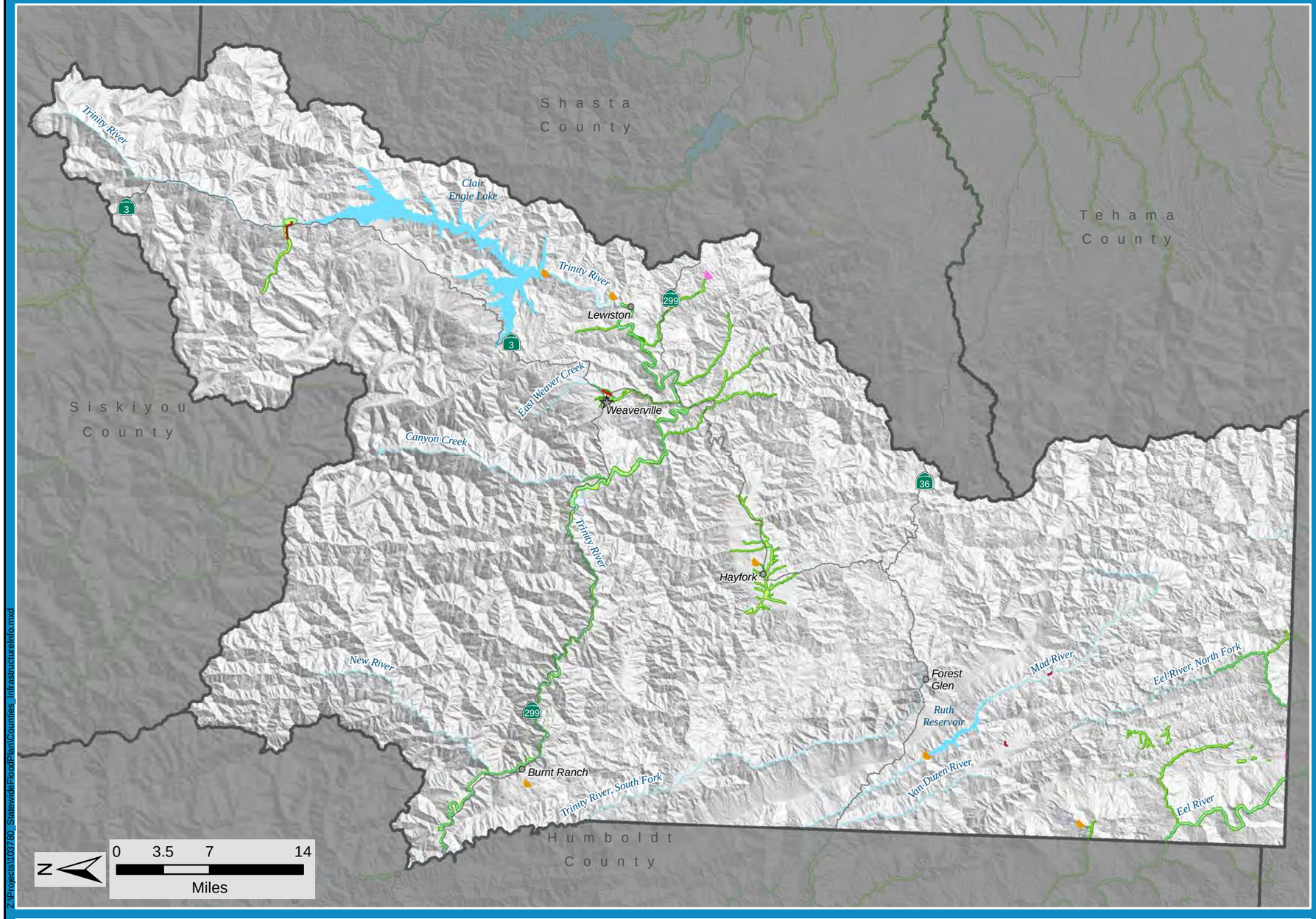
September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



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Trinity County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

No PDF/Hard Copy Data Received

Agencies Contacted as Part of SFMP:

Trinity County Planning Department
Trinity River Restoration Program

Planned Projects:

Number of Local Projects:	2
Estimated Cost of Local Projects:	n/a
Number of USACE Projects:	0
Estimated Cost of USACE Projects:	none

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Trinity County

Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Figure D106
Summary of Available Flood Infrastructure Information, Trinity County

September 2013

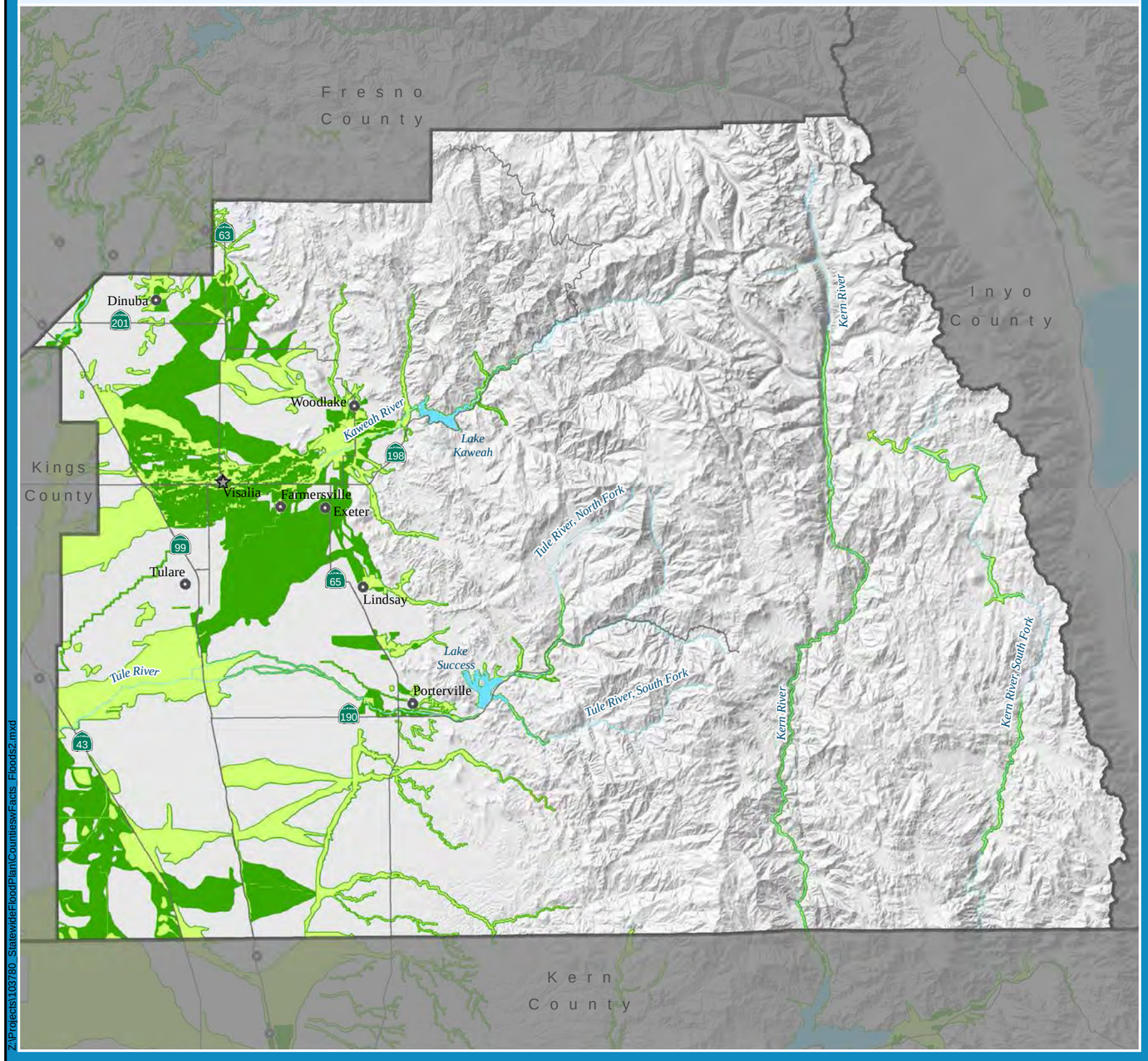
US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

100-year and 500-year Floodplains



N

0 4.25 8.5 17

Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

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Selected Flood Events by Event Year

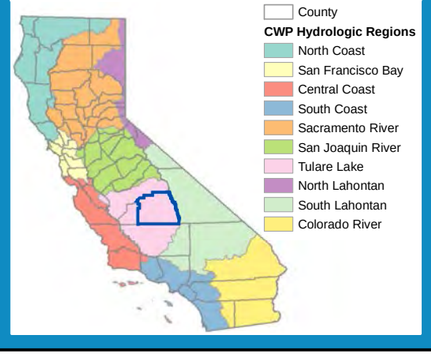
1805
1861-1862 Winter, The Great Flood
1867-1868 Winter
1913 July, Black Flood
1955-1956 Winter, 1955 Christmas Flood
1956-1957 Winter, La Niña
1966-1967 Winter
1968-1969 Winter 1968-1969 Storms
1969-1970 Winter/Spring, Northern California Flooding
1982-1983 Winter/Spring, Winter Storms
1993 January, Late Winter Storms
1995-1996 Winter, 1995 Christmas Floods
1997 Winter, January 1997 Floods
1998 Spring, El Niño Floods
2002 May
2005-2006 Winter/Spring
2007 October 29
2008 July 12-15
2009 October
2010-2011 December 2010 Winter Storm Event

Types of Flooding

Likely:
Flash
Slow-rise
Stormwater

Present:
Alluvial Fan
Debris Flow
Engineered Structure Failure

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	3.1 million
Total Population:	368,100
Total Structures:	128,000
Total Depreciated Replacement Value of Structures and Contents:	$25.2 billion
Total Crop Acreage:	753,800
Total Value of Crops:	$2.3 billion

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	176,100	366,300
Percent of Area Exposed:	6%	12%
Population Exposed:	62,100	191,900
Percent of Population Exposed:	17%	52%
Structures Exposed:	20,400	64,800
Depreciated Replacement Value of Structures and Contents Exposed:	$4.5 billion	$14.1 billion
Crops Exposed (acres):	112,900	254,300
Value of Crops Exposed:	$326.4 million	$721.3 million
Department of Defense Facilities Exposed:	2	2
Essential Facilities Exposed:	33	110
High Potential Loss Facilities Exposed:	12	15
Lifeline Utilities Exposed:	3	11
Transportation Facilities Exposed:	199	334
Transportation Segments Exposed (miles):	126	259
Native American Tribal Land Exposed (acres):	4	4
Total Sensitive Plant Species Exposed:	38	39
Total Sensitive Animal Species Exposed:	48	50

Tulare County

Figure D107
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Tulare County.

September 2013

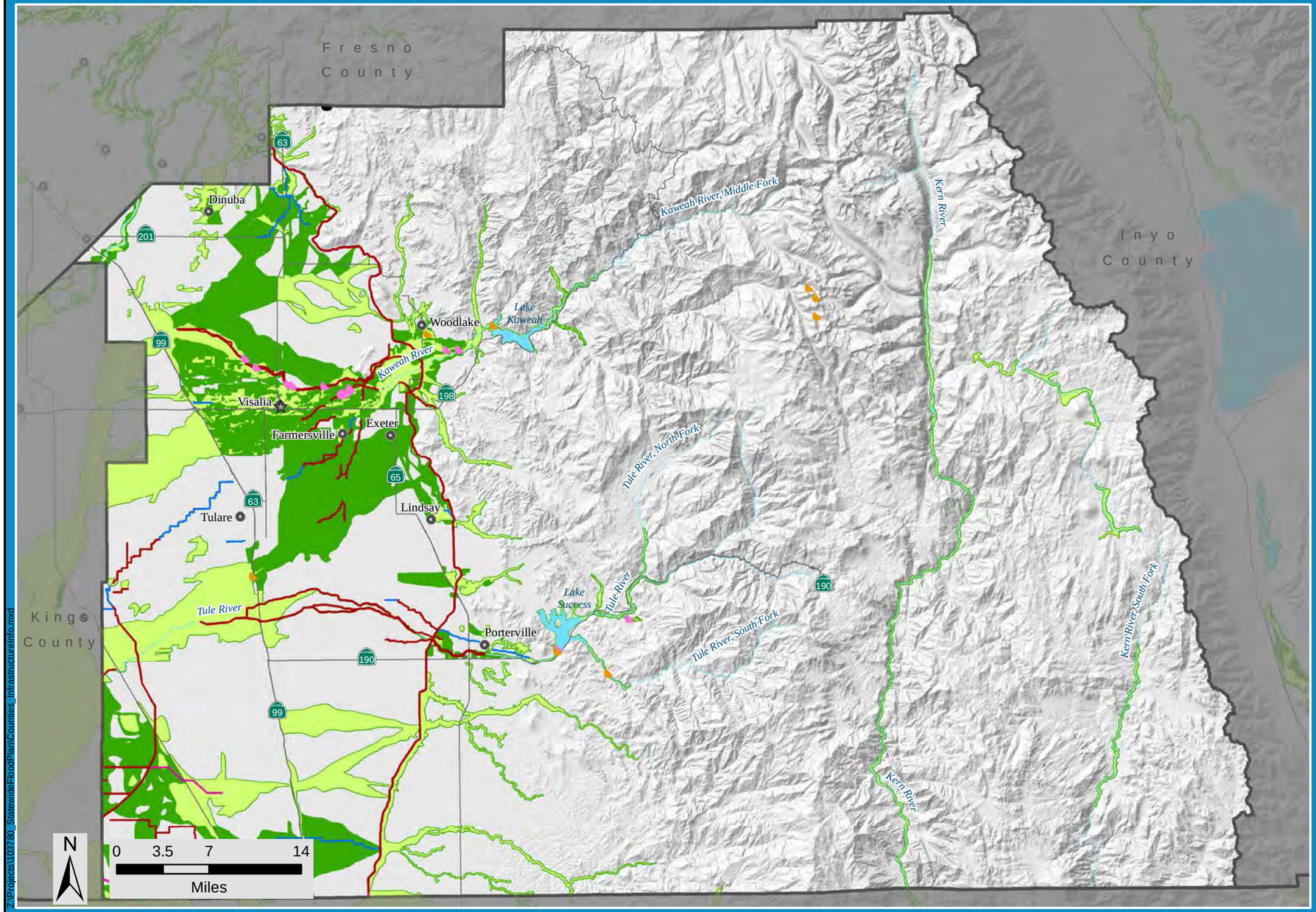
US Army Corps of Engineers

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



Tulare County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Channel
Dam

Agencies Contacted as Part of SFMP:

Tulare County Flood Control District

Planned Projects:

Number of Local Projects:	1
Estimated Cost of Local Projects:	$2.2 million
Number of USACE Projects:	5
Estimated Cost of USACE Projects:	$529.5 million

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.
All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Tulare County

Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Figure D108
Summary of Available Flood Infrastructure Information, Tulare County

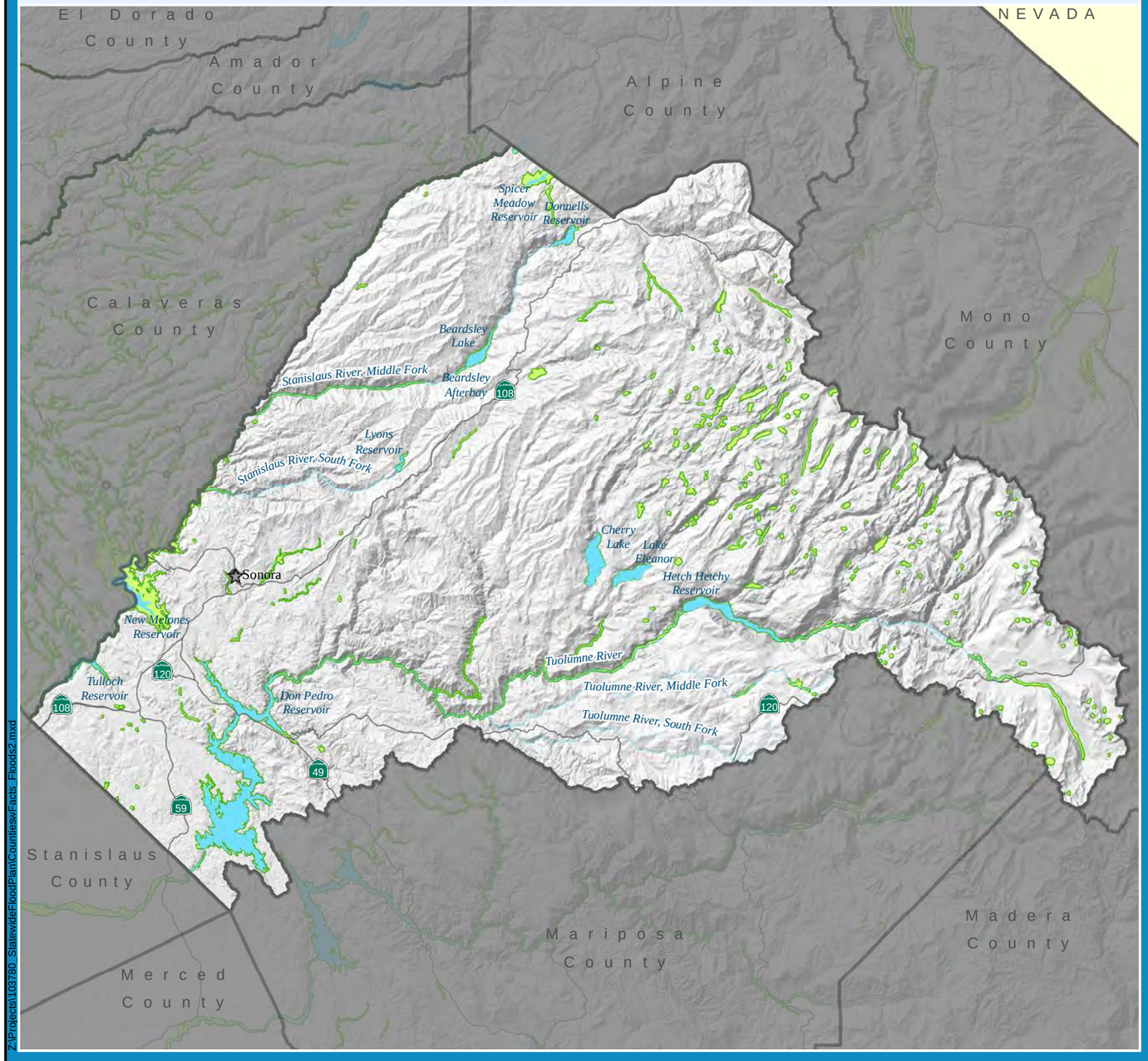
September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

100-year and 500-year Floodplains



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N

0 3.75 7.5 15

Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Selected Flood Events by Event Year

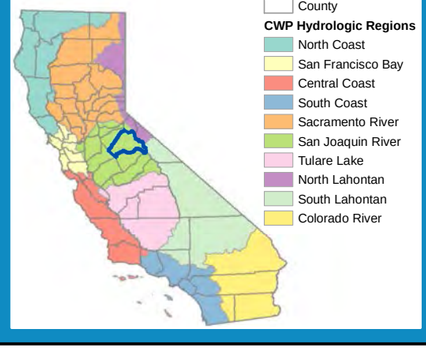
1861-1862 Winter, The Great Flood
1867-1868 Winter
1871-1872 Winter
1890 Winter/Spring
1911 Winter
1950 Fall/Winter
1955-1956 Winter, 1955 Christmas Flood
1958 Winter/Spring
1962-1963 Winter
1964-1965 Winter
1966-1967 Winter/Spring
1967 Spring/Summer
1968-1969 Winter 1968-1969 Storms
1980 Winter
1982-1983 Winter/Spring, Winter Storms
1986 Winter, St. Valentine's Day Storm
1995-1996 Winter/Spring
1996-1997 Winter, January 1997 Floods
2006 Spring Storms
2011 March

Types of Flooding

Likely:
Flash
Slow-rise
Stormwater

Present:
Debris Flow
Engineered Structure Failure

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	1.5 million
Total Population:	54,500
Total Structures:	29,900
Total Depreciated Replacement Value of Structures and Contents:	$6.0 billion
Total Crop Acreage:	1,400
Total Value of Crops:	$2.3 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	41,200	41,200
Percent of Area Exposed:	3%	3%
Population Exposed:	500	500
Percent of Population Exposed:	1%	1%
Structures Exposed:	200	200
Depreciated Replacement Value of Structures and Contents Exposed:	$45.1 million	$45.1 million
Crops Exposed (acres):	6	6
Value of Crops Exposed:	$27,300	$27,300
Department of Defense Facilities Exposed:	0	0
Essential Facilities Exposed:	3	3
High Potential Loss Facilities Exposed:	10	10
Lifeline Utilities Exposed:	0	0
Transportation Facilities Exposed:	6	6
Transportation Segments Exposed (miles):	3	3
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	30	30
Total Sensitive Animal Species Exposed:	44	44

Tuolumne County

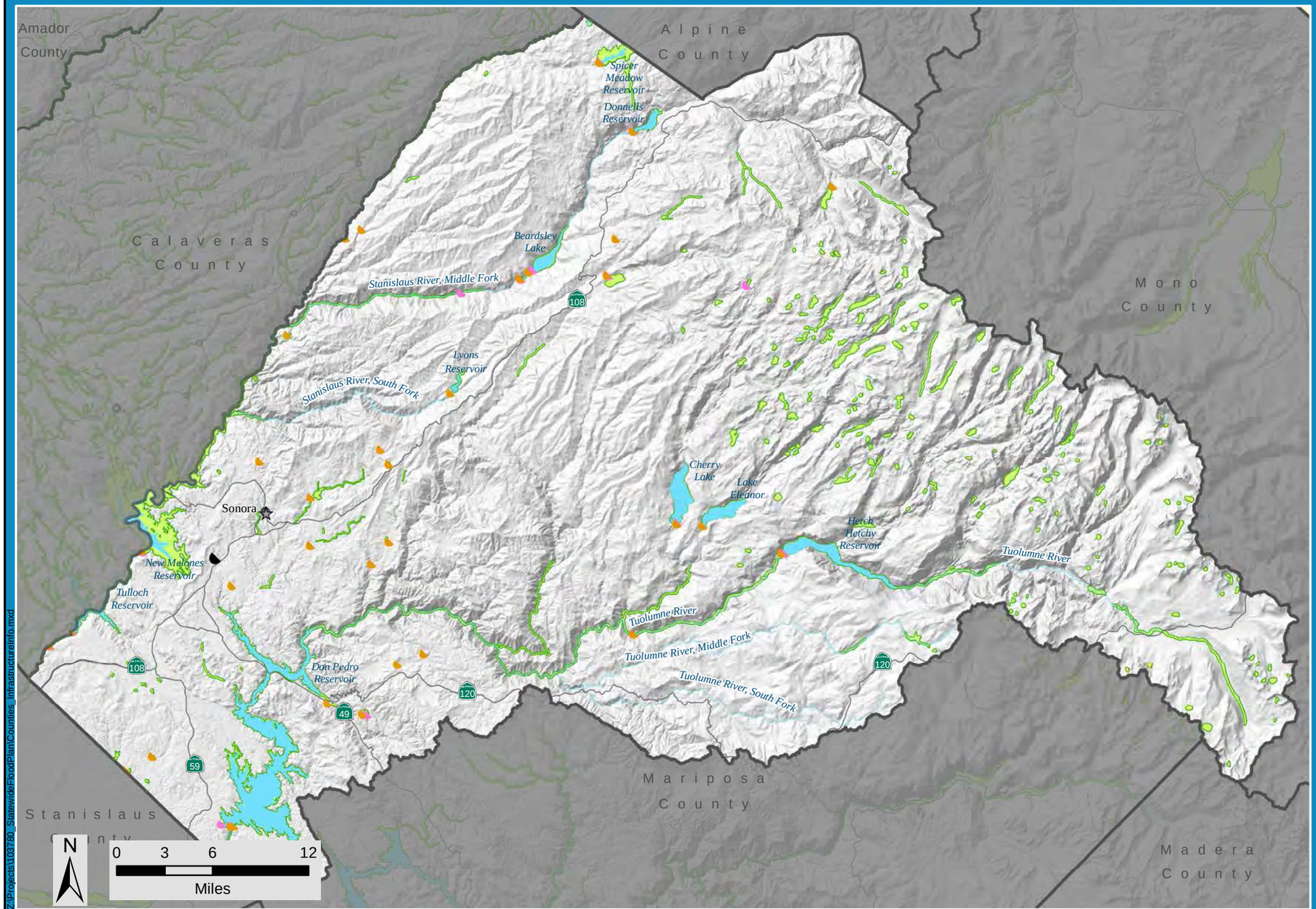
Figure D109
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Tuolumne County.

September 2013

US Army Corps of Engineers

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

Summary of Available Flood Infrastructure Information



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Tuolumne County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Dam

Agencies Contacted as Part of SFMP:

Tuolumne County

Planned Projects:

Number of Local Projects:	1
Estimated Cost of Local Projects:	n/a
Number of USACE Projects:	0
Estimated Cost of USACE Projects:	none

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Figure D110

Summary of Available Flood Infrastructure Information, Tuolumne County

September 2013

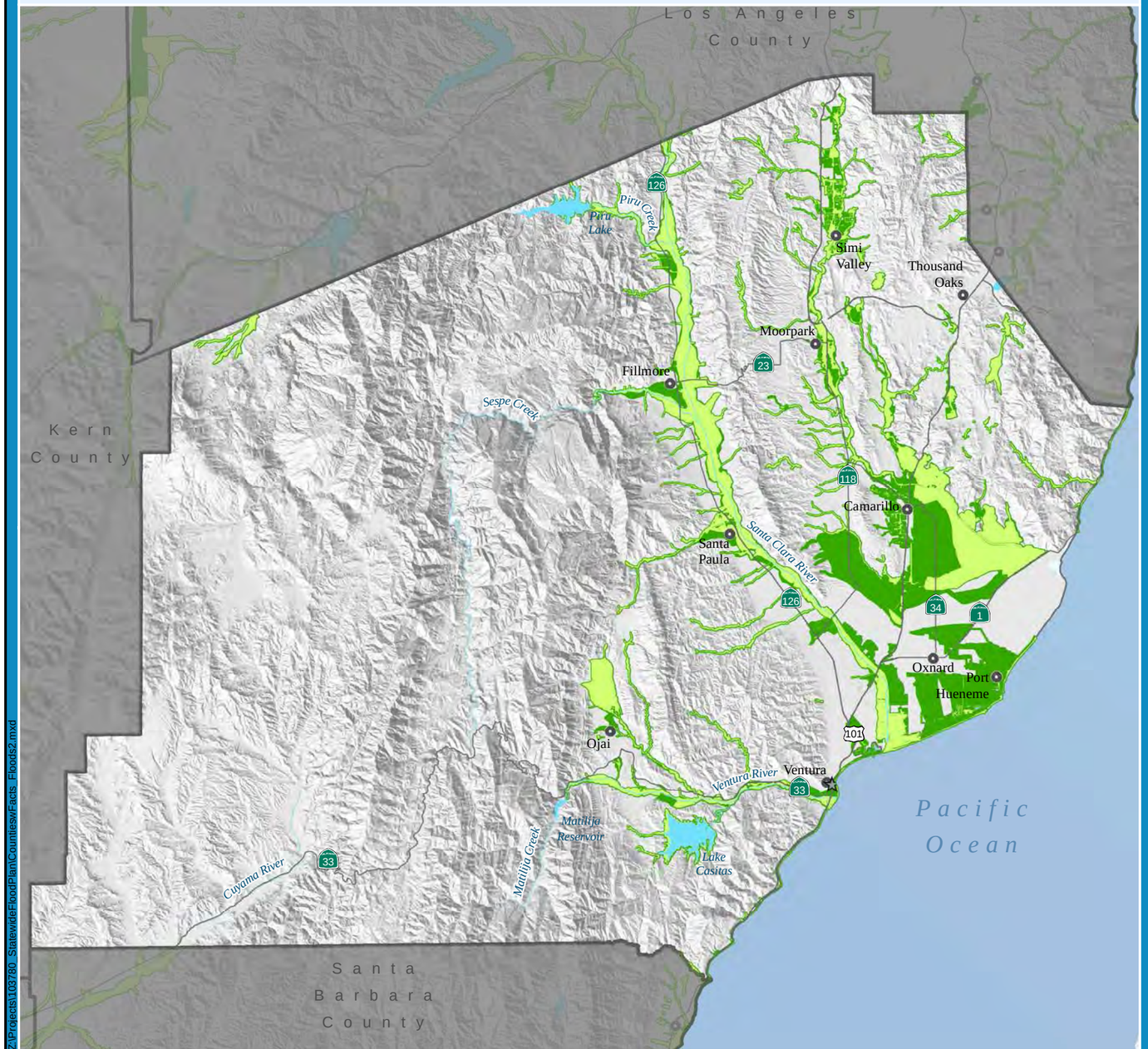
US Army Corps of Engineers

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

100-year and 500-year Floodplains



N 0 2.75 5.5 11 Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

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Selected Flood Events by Event Year

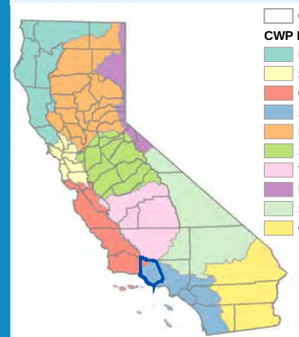
1775-1776
1861-1862 Winter, The Great Flood
1914 January, Heavy Rain of 1914
1916 January, Great Flood of 1916
1932 February 1932 Flood
1937-1938 Winter, Great Flood
1955-1956 Winter, 1955 Christmas Flood
1963 Winter
1969 Winter 1969 Storms
1982-1983 Winter/Spring, Winter Storms
1983 March 1983 Storms
1992 Late Winter Storms
1995 Severe Winter Storms
1997 Winter, January 1997 Floods
1998 Winter, El Niño Floods
2002 December, El Niño Floods
2004-2005 Winter
2010 February
2011 March

Types of Flooding

Likely:
Alluvial Fan
Coastal
Debris Flow
Flash
Slow-rise
Stormwater

Present:
Engineered Structure Failure
Tsunami

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	1.2 million
Total Population:	753,400
Total Structures:	240,400
Total Depreciated Replacement Value of Structures and Contents:	$71.7 billion
Total Crop Acreage:	110,500
Total Value of Crops:	$896.4 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	52,200	87,700
Percent of Area Exposed:	4%	7%
Population Exposed:	49,600	203,400
Percent of Population Exposed:	7%	27%
Structures Exposed:	16,400	58,600
Depreciated Replacement Value of Structures and Contents Exposed:	$5.1 billion	$16.8 billion
Crops Exposed (acres):	21,700	38,700
Value of Crops Exposed:	$192.8 million	$379.4 million
Department of Defense Facilities Exposed:	2	2
Essential Facilities Exposed:	30	81
High Potential Loss Facilities Exposed:	1	19
Lifeline Utilities Exposed:	4	12
Transportation Facilities Exposed:	111	189
Transportation Segments Exposed (miles):	74	198
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	31	31
Total Sensitive Animal Species Exposed:	51	52

Ventura County

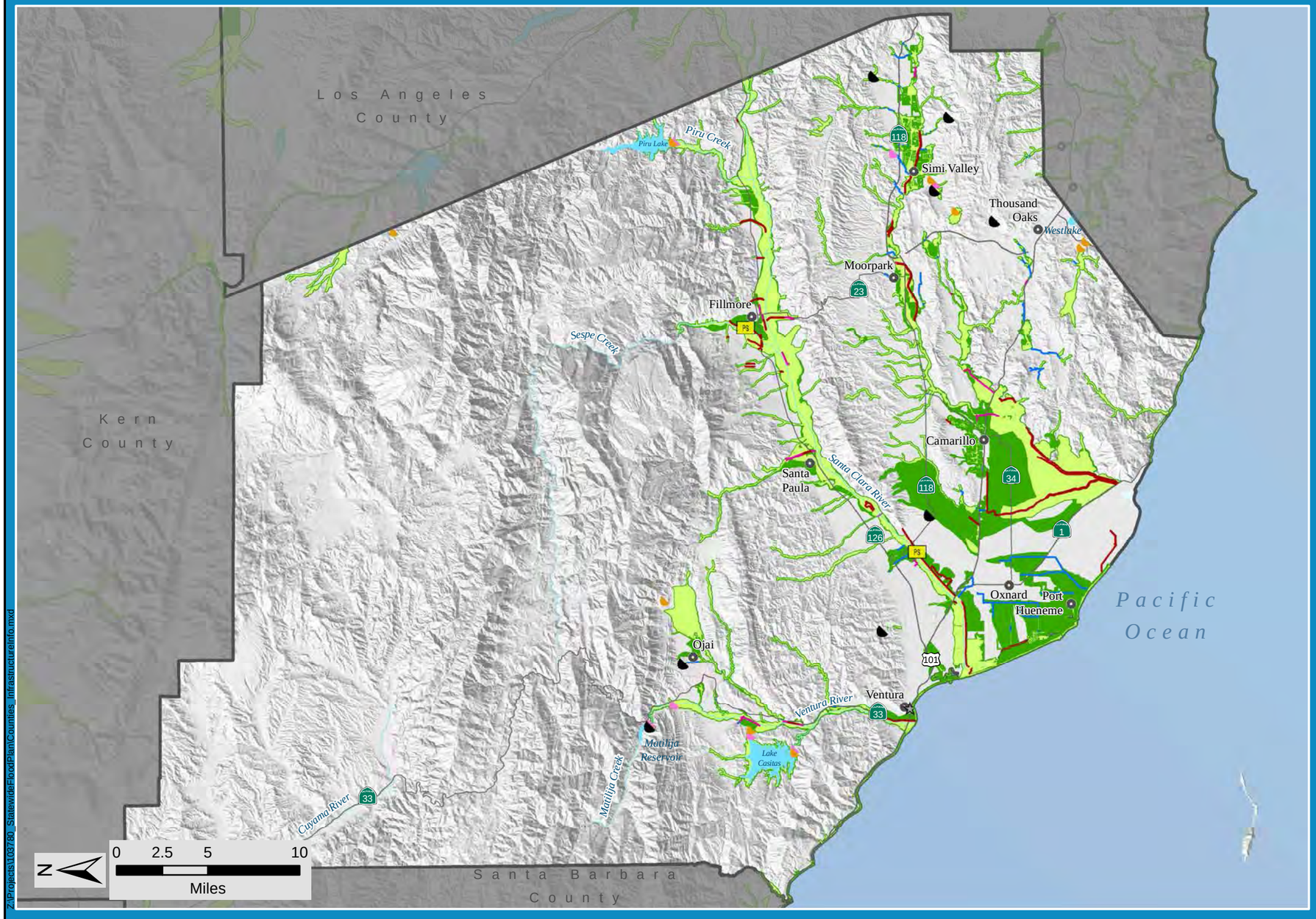
Figure D111
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Ventura County.

September 2013

US Army Corps of Engineers.
STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



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Ventura County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Channel
Dam
Debris Basin
Detention Basin

Agencies Contacted as Part of SFMP:

Ventura County Public Works
Ventura County Watershed Protection District

Planned Projects:

Number of Local Projects:	27
Estimated Cost of Local Projects:	$1.4 billion
Number of USACE Projects:	0
Estimated Cost of USACE Projects:	none

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.
All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

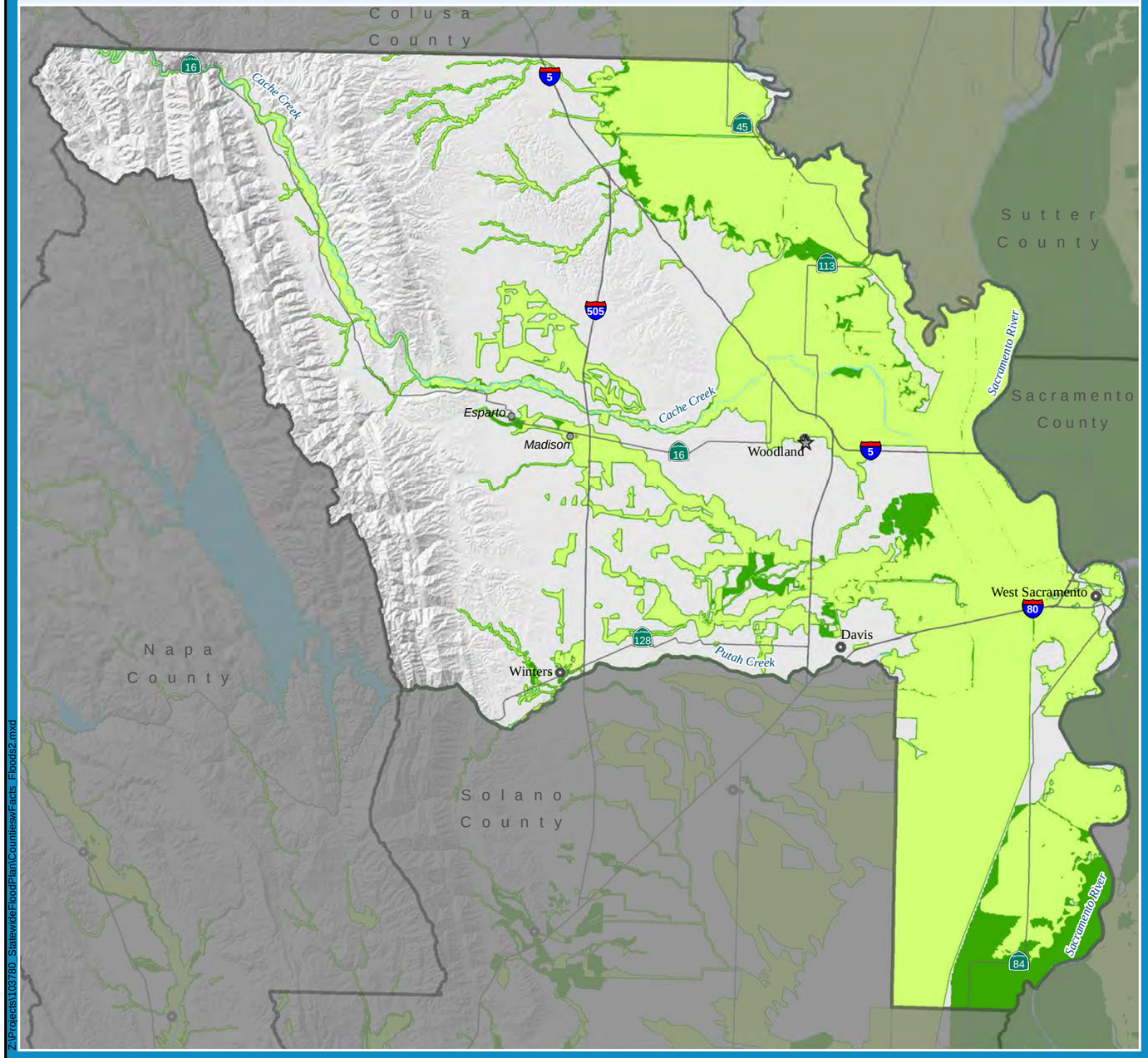
Figure D112
Summary of Available Flood Infrastructure Information, Ventura County

September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

100-year and 500-year Floodplains



N

0 2.5 5 10

Miles

City
Populated Place
Highway
Major River
100-yr Floodplain
500-yr Floodplain
Major Water Body
County

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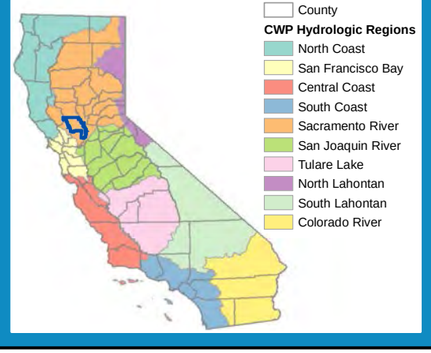
Selected Flood Events by Event Year

1805
1825-1826
1861-1862 Winter, The Great Flood
1913-1914 Winter
1937-1938 Winter, Great Flood
1958 Winter/Spring
1962 October
1962-1963 Winter
1964-1965 Winter, Christmas 1964 Disaster
1966-1967 Winter/Spring
1969-1970 Winter/Spring, Northern California Flooding
1974 Winter/Spring, 1974 Flood
1982-1983 Winter/Spring, Winter Storms
1986 February, St. Valentine's Day Storm
1995 Winter Storms
1996-1997 Winter, January 1997 Floods
1998 Winter, El Niño Floods
2006 May 10
2008 January 5-14, 2008 Winter Storms

Types of Flooding

Likely:	Present:
Flash	Alluvial Fan
Slow-rise	Debris Flow
Stormwater	Engineered Structure Failure

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	653,500
Total Population:	168,000
Total Structures:	53,500
Total Depreciated Replacement Value of Structures and Contents:	$15.5 billion
Total Crop Acreage:	348,000
Total Value of Crops:	$631.8 million

Summary of Exposure to Flood Hazard Reported by County

	100-yr Event	500-yr Event
Area Exposed (acres):	239,900	260,600
Percent of Area Exposed:	37%	40%
Population Exposed:	56,800	59,800
Percent of Population Exposed:	34%	36%
Structures Exposed:	19,500	20,500
Depreciated Replacement Value of Structures and Contents Exposed:	$5.8 billion	$6.1 billion
Crops Exposed (acres):	180,500	199,800
Value of Crops Exposed:	$330.7 million	$360.7 million
Department of Defense Facilities Exposed:	0	0
Essential Facilities Exposed:	37	39
High Potential Loss Facilities Exposed:	9	9
Lifeline Utilities Exposed:	4	4
Transportation Facilities Exposed:	116	120
Transportation Segments Exposed (miles):	154	166
Native American Tribal Land Exposed (acres):	300	300
Total Sensitive Plant Species Exposed:	18	19
Total Sensitive Animal Species Exposed:	41	41

Figure D113
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Yolo County.

September 2013

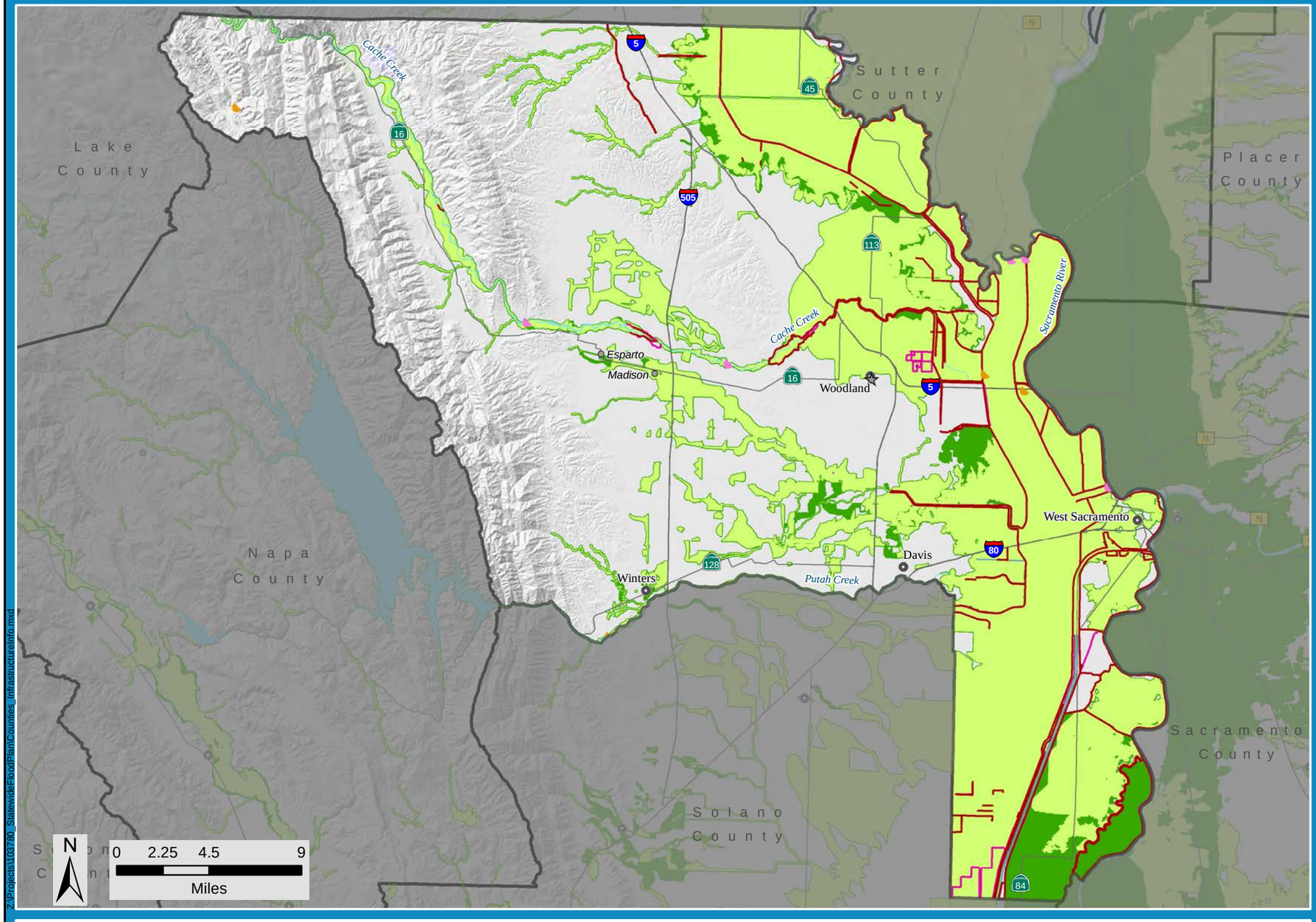
US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



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Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Yolo County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Levee
Channel
Settling Basin

Agencies Contacted as Part of SFMP:

City of West Sacramento
City of Woodland
Knights Landing/Ridge Drainage District
West Sacramento Flood Control Agency
Yolo County
Yolo County Service Area No. 6
Yolo County Flood Control and Water Conservation District

Planned Projects:

Number of Local Projects:	52
Estimated Cost of Local Projects:	$750.3 million
Number of USACE Projects:	0
Estimated Cost of USACE Projects:	none

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.
All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Figure D114
Summary of Available Flood Infrastructure Information, Yolo County

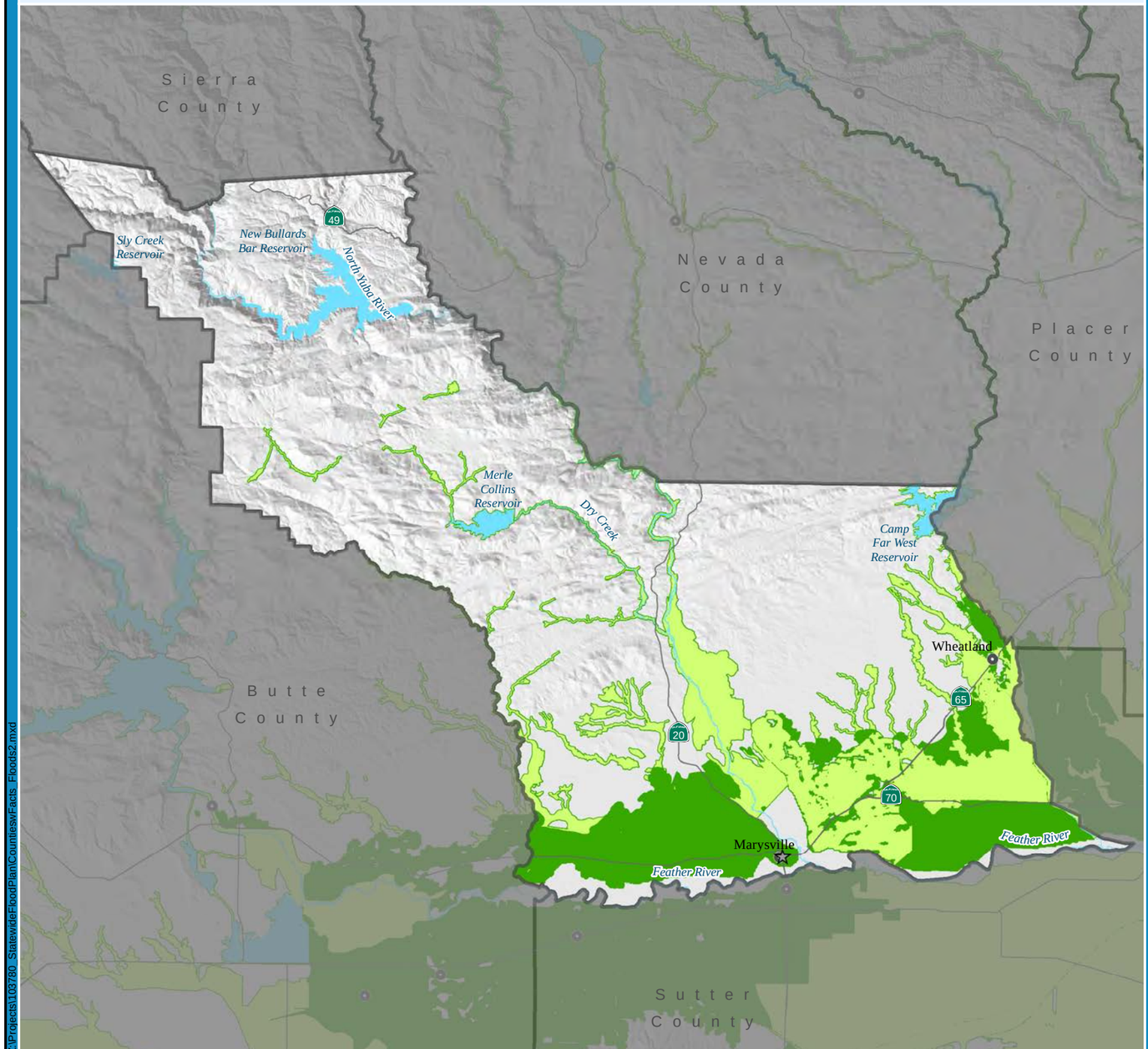
September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

DISCLAIMER: *1) Information displayed on the map does not represent all existing flood infrastructure in the county. Only infrastructure available as "Statewide GIS Data" or submitted in a GIS format by one of the interviewed agencies is shown. 2) The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

100-year and 500-year Floodplains



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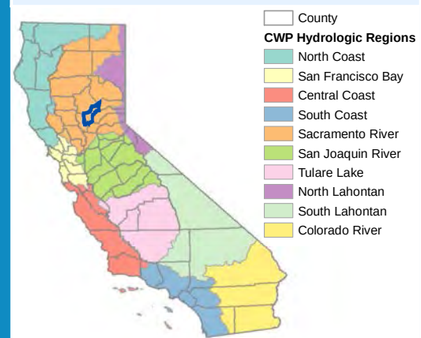
Selected Flood Events by Event Year

1805
1852-1853 Winter
1861-1862 Winter, The Great Flood
1937-1938 Winter, Great Flood
1955-1956 Winter, 1955 Christmas Flood
1962 October
1962-1963 Winter
1964-1965 Winter, Christmas 1964 Disaster
1966-1967 Winter/Spring
1969-1970 Winter/Spring, Northern California Flooding
1973 Winter/Spring
1974 Winter/Spring, 1974 Flood
1982-1983 Winter/Spring, Winter Storms
1986 February, St. Valentine's Day Storm
1995 Winter Storms
1996-1997 Winter, January 1997 Floods
1998 Winter, El Niño Floods
2005-2006 Winter Storms
2006 May 10
2008 January 5-14, 2008 Winter Storms

Types of Flooding

Likely:	Present:
Flash	Debris Flow
Slow-rise	Engineered Structure Failure
Stormwater	

Hydrologic Regions



Flood Hazard Exposure

County Statistics

Total Acreage:	412,000
Total Population:	60,200
Total Structures:	23,300
Total Depreciated Replacement Value of Structures and Contents:	$3.9 billion
Total Crop Acreage:	92,600
Total Value of Crops:	$158.7 million

Summary of Exposure to Flood Hazard Reported by County	100-yr Event	500-yr Event
Area Exposed (acres):	51,800	95,400
Percent of Area Exposed:	13%	23%
Population Exposed:	20,800	41,400
Percent of Population Exposed:	35%	69%
Structures Exposed:	7,400	16,700
Depreciated Replacement Value of Structures and Contents Exposed:	$1.1 billion	$2.5 billion
Crops Exposed (acres):	22,300	55,000
Value of Crops Exposed:	$34.5 million	$110.2 million
Department of Defense Facilities Exposed:	1	1
Essential Facilities Exposed:	14	34
High Potential Loss Facilities Exposed:	4	4
Lifeline Utilities Exposed:	0	1
Transportation Facilities Exposed:	42	66
Transportation Segments Exposed (miles):	37	84
Native American Tribal Land Exposed (acres):	0	0
Total Sensitive Plant Species Exposed:	5	7
Total Sensitive Animal Species Exposed:	14	14

Yuba County

Figure D115
Summary of Available Flood Types, Flood History and Flood Hazard Exposure, Yuba County.

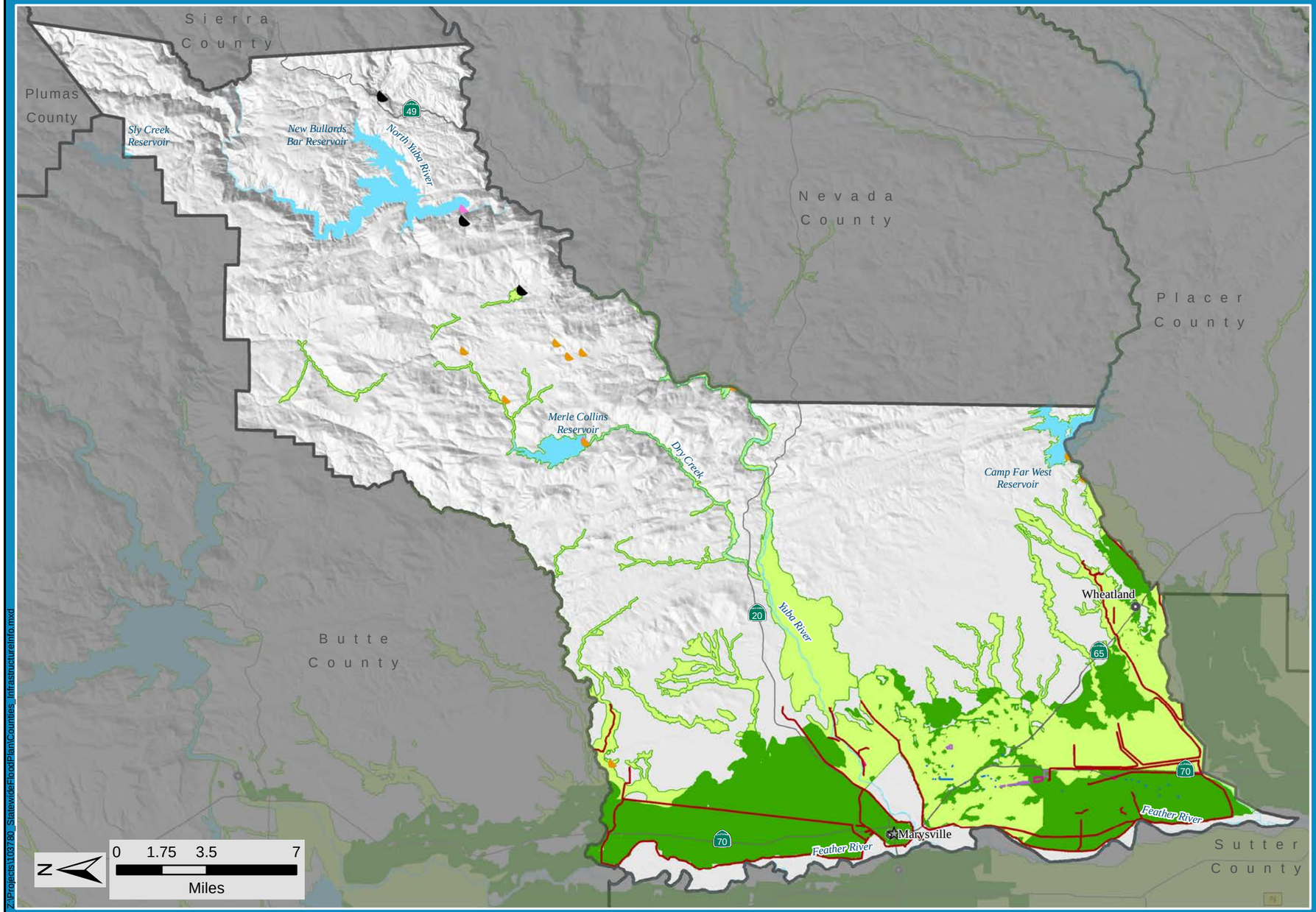
September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

DISCLAIMER: *The DWR did not develop all the displayed floodplain extents and cannot guarantee their accuracy.*

Summary of Available Flood Infrastructure Information



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Statewide GIS Data:

- City
- Populated Place
- DWR Local Agency Dam
- DWR Other Dam
- NFHL Dam or Weir
- CLD Pump Station
- CLD Local Agency Levee
- CLD Other Levee
- NFHL Levee
- NFHL Flood Event Structure
- NFHL Channel
- NFHL Control Structure
- NFHL Dike
- NFHL Retaining Wall
- Highway
- Major River
- Major Water Body
- 100-yr Floodplain
- 500-yr Floodplain
- County

Yuba County

Flood Infrastructure GIS Data Received from Agencies Contacted:

No Flood Infrastructure GIS Data Received

Non-GIS, PDF/Hard Copy Flood Infrastructure Data Received from Agencies Contacted (Not Shown On Map):

Levee
Channel
Dam

Agencies Contacted as Part of SFMP:

Three Rivers Levee Improvement Authority
Yuba County Public Works
Yuba County Water Agency

Planned Projects:

Number of Local Projects:	11
Estimated Cost of Local Projects:	$923.7 million
Number of USACE Projects:	0
Estimated Cost of USACE Projects:	none

Statewide GIS Data Sources:

Cities derived from CAL FIRE incorporated city limit polygons, 2010. **Populated Places** from GNIS, 2011. **Counties** from CalAtlas, 2009. **Dams** modified from DWR, Bullletin 17-00, 2000. **CLD** layers are from California Levee Database, v2.2 r2, 2010. **NFHL** layers are from the National Flood Hazard Layer, FEMA, August 2011. **Highways** from TeleAtlas, 2004. **Rivers** and **Lakes** modified from DFG, N/A. **Floodplains** compiled for SFMP, 2011.

All other Flood Infrastructure GIS data, noted above, received from Agencies Contacted.

Figure D116
Summary of Available Flood Infrastructure Information, Yuba County

September 2013

US Army Corps of Engineers.

STATEWIDE FLOOD MANAGEMENT PLANNING PROGRAM
FloodSAFE CALIFORNIA

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